

Planning That Works

Farm Exports Count

Fashion Forecast

GENERAL CCIENCIA





"There's your One-Ninety, Bill-between the D-21 and the D-15!"

Down by the station early in the morning, a flatcar full of farm power makes a pretty sight. Whether they come by rail or highway hauler, you've got to look fast to see Big Orange tractors in town like this. They're riding a one-way ticket to productivity, and in the next few days they will be rolling over the countryside, working the soil. Bill here has been itching to take command of that great all-new One-Ninety, the one that



does more work with less effort than any 5-bottom tractor ever did before. He can see himself up on that contoured seat, right hand resting easy on the unique console control, with the long low hood in front and day-long fuel tank at his back—master of a tractor built to go! No wonder Bill's down to meet the train just ahead of the neighbor who's getting delivery of the other Allis-Chalmers Big Orange brute—the massive, high-production, acre-

hungry D-21 at the rear of the car. The 7-plow giant that runs a full 8 tons of muscle without an ounce of fat. The giant D-21 and the all-new One-Ninety are both big machines to make big farming profitable. But every tractor shown here, the versatile 4-plow D-17 and the hustling 3-plow D-15, too, was built by The Tractor People to help make more money for farm people. We think one of them is bound to be your tractor!

THERE'S A BUMPER CROP OF PRIZES IN THE Elephant Brand BEST IN THE WEST CONTEST



-NEW 1965 GMC 2-TON TRUCK PLUS 5 TONS OF ELEPHANT BRAND FERTILIZER

A modern workhorse with all the features to make it a valuable extra hand on your farm! Ready for action and profit—yours with 5 tons of dependable Elephant Brand fertilizers!

20 ADDITIONAL PRIZES - EACH 1 TON OF HIGH-QUALITY ELEPHANT BRAND FERTILIZER

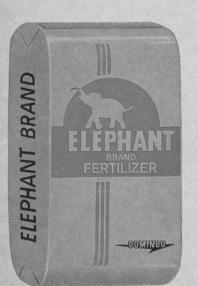
SEE YOUR ELEPHANT

Get your entry in today! This exciting contest is open to all farmers in Western Canada. It's the biggest contest in the West-brought to you by the leading fertilizer in the West. And the prizes are the best in the West! The 1965 GMC 2-ton truck is built for years of service-and Elephant Brand Fertilizers have been paying big dividends in higher farm profits for more than 30 years. They're quality products through and

through. High analysis for greater value. Watersoluble for faster action. Uniform-sized pellets for faster, more efficient application. It's the most complete line of fertilizers in the West. And your Elephant Brand Dealer has the equipment and service to back it up-plus all the experience you need to help you plan a profitable fertilizer program. See him soon!

IT'S EASY AND IT'S FUN! Here's a contest the whole family can enjoy! Just find the winning word in the puzzle game at the right. Fill in the entry form with your answer. Then drop by your Elephant Brand Dealer and have him sign your entry
You can enter as often

as you like, right up to closing date March 15th. Complete Rules and additional Entry Forms are available from your Elephant Brand dealer. Selected contestants, to win, must correctly answer a skill-testing question, and prizes may be awarded regionally. Enter now-enter often!



Win with the Best!

Elephant Brand high quality FERTILIZERS

The most complete line of Fertilizers in the West

-	-	COURSE SHOWN SHOWN IN	-	
ST	FIND	THE	WINNING	WORD

Read the following paragraph-figure out the missing wordsthen print them in the spaces marked below.

You can trust E	Brand Quality.
It's the Quality backed by M	than 30 years
It's the Q	that has made Elephant
B the leading	fertilizer in the W6
Print the numbered letters here:	00000

UNSCRAMBLE THEM-AND YOU HAVE THE WINNING WORD!

Here's a clue: To make yours higher, fertilize with high-quality Elephant Brand-the best in the West!

Here's my winning word

PROVINCE......TELEPHONE (Please Print)

1 2 3 4 5 6

This Entry has been signed by my Elephant Brand Dealer.

DEALER'S SIGNATURE.....

DEALER'S ADDRESS ..

Cheese Men Look to Exports

DELEGATES to the 32nd annual meeting of the Ontario Cheese Producers Association and Marketing Board in Ottawa in January heard conflicting opinions on the worth of the Federal Government's subsidy program for cheese producers. Marketing Board President Hector Arnold expressed disappointment with the Federal Government's decision last year to discontinue a flat payment of 30¢ per cwt. for cheese milk, and to replace it with a subsidy of 3.6¢ lb. on all Canada First Grade cheese. He contended (and he was supported later by a resolution from the floor) that this placed the smaller cheese factory at a disadvantage to the larger, more modern plant. On the other hand, F. D. Murphy of the Canada Department of Agriculture, and Lucien Lamoureaux, the Liberal M.P. for Stormont, both stated flatly that the new system was not only working well, it was resulting in higher prices for cheese milk, and a great improvement in the grade and quality of cheese. Mr. Murphy pointed out that cheese milk prices in August and September of 1964 were from 10¢ to 14¢ a cwt. higher than for the same months 1 year ago under the 30¢ cwt. subsidy.

While Murphy may have felt that the subsidy program was responsible at least in part for the higher cheese milk prices, Hector Arnold didn't share this view. Pointing out that cheese prices on the Belleville Exchange reached as high as 39¢ for rounds, and 401/2¢ for squares early in November, he stated, "Cheese plants this past season have paid the highest price on record for milk, and I think I should point out that this increase in price was the direct result of action of your board and certainly not caused by any general increase in milk prices, or even other farm commodity prices."... He estimated that the increased return to Ontario cheese milk producers would amount to \$7 to \$8

While both Mr. Murphy and Mr. Arnold were partly right, it can probably be more accurately stated that the strengthening of these prices was due to the fact that the market for Canadian cheddar was strong, and the supply was short.

What of the British market? G. P. Gomersell, of Levell and Christmas, one of the larger British food distributors and one of Canada's best customers, told the delegates at the meeting that "there is room for more good Ontario cheese on our market, but how much more will of course depend on price levels." Canadian cheese, when it reaches the U.K., must be cured for several months before it is ready for cutting. The storage, interest charges and other costs and commissions increase the price by about $8\frac{1}{2}\phi$ lb. over the purchase price here. Without saying so, Mr. Gomersell made it clear that Canadian producers should not push this matter of price too vigorously if they wish to retain the interest of the British buyer, who knows that New Zealand, Australian, and domestic cheese, while somewhat inferior in quality, is more attractively priced.

Mr. Gomersell reminded the delegates that the trend toward selfservice stores and supermarkets in Britain is causing a serious reappraisal of the market for our traditional large, round 90-lb. cheeses. The British merchant is demanding more and more of the 40-lb. rindless squares which lend themselves to cutting and repackaging. He appealed to the board to give increased attention to the demands for these blocks, and to see to it that they have the same high quality of maturity as the famous Stiltons. "If your rindless blocks fail to live up to the standard, then is it worth all the extra care and attention to produce raw milk, rindless cheese?" he

While the matter never really came to the floor of the meeting, there is evidence that Ontario cheese producers are worried about the possibility of their neighbors in Quebec moving into the British market, capitalizing on the market development program that has been financed by the Ontario producers. Last year, Ontario cheese producers contributed more than \$600,000 to finance the storage and export of cheese to overseas (chiefly British) markets. In Quebec, there is no such marketing board, or no such producer financed program, but the cheese makers and wholesalers there have been able to capitalize on the Ontario promotion, and the shortage of product. Quebec sales are growing rapidly. This is a sore spot with Ontario producers. The Ontario board guarantees its cheese, and it has very seldom had to re-place any of the product. Some early Quebec shipments were not of extremely high quality, and some complaints were lodged. Ontario producers fear for their reputation, and a resolution asking the amendment of Federal regulations to provide that all Ontario cheese be so labeled was approved by the meeting in Ottawa. A similar resolution was passed by the annual meeting of the Ontario Federation of Agriculture in Toronto in November. The move, described by officials as a mere formality, would not exclude Quebec cheese from the market, but it would enable shippers and buyers to identify Ontario cheese when it reaches its destination.

From all of this it would appear that the prospects for 1965 are bright. There is keen demand for good Ontario cheese on all markets, the price prospects are good, and producers have been alerted to the need to meet changing preferences by the buyers. All that remains is to find some way, some incentive, to direct more milk into this market. Price has increased but it has not wholly solved the problem. Perhaps the answer lies with Ontario's Dairy Industry Inquiry Committee, and its long - awaited report. - DonRitson.

THE FARM MAGAZINE

Editor: DON BARON

Associate Editors: CLIFF FAULKNOR—Calgary, Alta. PETER LEWINGTON—London, Ont. ROGER FRY—Winnipeg, Man.

Home and Family Section:

February 1965

This wasn't intended to be a pretty picture and it isn't. It does drive home the point that world trade in farm products is a matter of concern to more than just farm people. In these days of surpluses, malnutrition is common in many parts of the world. This African child is suffering from protein deficiency.



In a series of articles beginning in this issue, Associate Editor Peter Lewington takes a hard look at export trade in farm products, points ou some of the problems bedeviling it, and some of the opportunities that car be grasped not only by farm people and farm groups, but by the country as a whole. It is time to act, not only in our own interests, but because of our responsibilities to people in need.

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Home and Family

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About Our Cover

These potatoes, the pride of Prince Edward Island, are being loaded aboard the S.S. Magister at Summerside, bound for Puerto Rico. The picture keynotes Peter Lewington's series of articles on farm exports beginning in this issue.-Peter Lewington photo.

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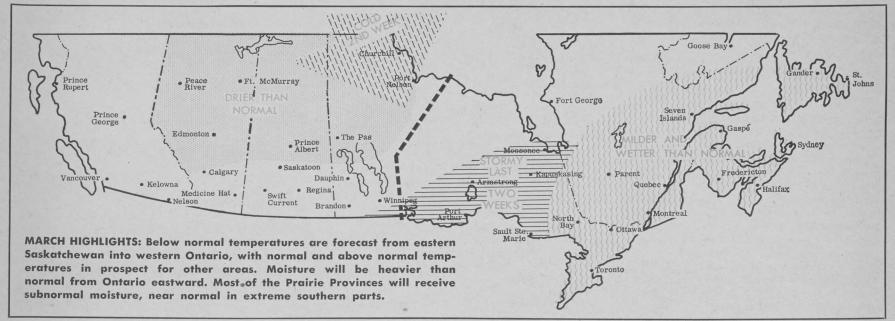
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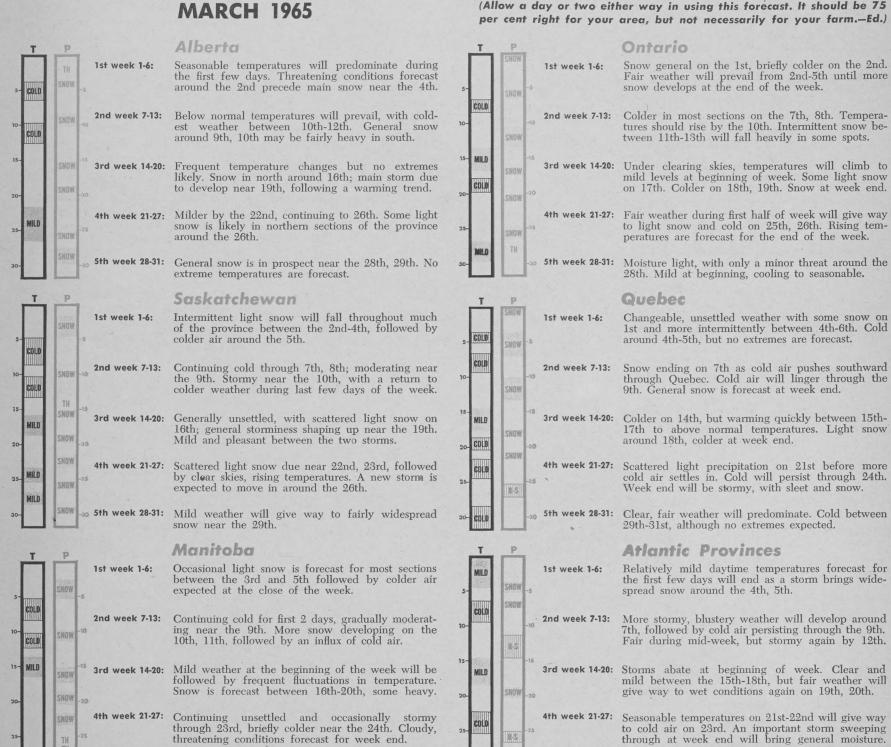
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Serving Canadian Farmers Since 1882

Weather Forecast

Prepared by IRVING P. KRICK ASSOCIATES





COLD

Key to Abbreviations: T, temperature; P, precipitation; CL, cooler; WM, warmer; TH, threatening; SH, showers; R-S, rain or snow.

Mild on 28th, 29th, with some snow developing on 29th. Clear skies, seasonable temperatures following.

85

5th week 28-31:

5th week 28-31: Little precipitation expected, but threatening conditions forecast for 29th, 30th. Colder by 30th.

Editorials

Buyers' Wheat Market

IN RECENT YEARS as countries like Australia, Argentina and France expanded their wheat acreage, it was inevitable that world wheat prices would eventually react. The reaction came in January when prices underwent sharp reductions and wheat growers began to fear a price war.

Several developments finally triggered the price drop. In recent months, U.S. spokesmen have indicated grave concern that their country is losing out on world markets and will sell only about 100 million bushels of wheat in cash markets this year.

Meanwhile, the recent agreement among European Common Market countries on a common grain price provided for a fund, financed from levies on grain imports, which could be used to subsidize grain exports. France has begun to use this fund to move its big wheat crop. At the same time, Australia and Argentina have been trying to move their surpluses by offering price concessions.

In January, Canada concluded a sale to China in which milling grades of wheat were priced at current levels, but feeding grades were dropped by 12 cents. This latter move brought the spread between feed grades and milling grades to about 17 cents — close to traditional spreads. A series of price cuts then took place both in the U.S. and Canada culminating, on January 28, with the sharp cut of 10 cents per bushel by the U.S. in its hard red wheat and 8 cents for soft wheat. This added up to a drop for the week of 20 cents in the export price of U.S. hard red and 18 cents on the soft white wheat.

The drop was less severe in Canada. No. 1 Northern, which had been \$2.04 on January 1, fell less than 13 cents to \$1.91¼ during the month. Following this, on February 1 (the day of writing) a sale was made to Russia, and the market price increased by ½ cent. It gave reason to hope that the end of the price drop had come.

It is well to examine the situation at this stage. Canadian wheat growers, who have played so large a part in bringing stability to the world wheat market through their selling system, will rue the round of price cutting. There is no indication that it will expand the total market for wheat, and Canadian farmers don't relish the prospect of bearing the costs of price-cutting.

Nevertheless, the price cuts have made it clear that Canada and the United States are not prepared to hold a price umbrella over other countries who want to move in a large way into the world wheat trade. At the same time, the price drop, which follows a period of rising prices, so far has not been a disaster. On February 1, the quoted price of \$1.91% was still only about 4 cents below the price that prevailed in Canada following the big Russian wheat sale in October 1963.

It is apparent that the sellers' market of recent years has vanished. Abundant world supplies of soft wheat and feed wheat are bearing down on prices. But sales of hard wheat from Canada are brisk. Substantial sales were made to China and Russia in January without serious price concessions. In fact, exports for the present crop year are continuing

at a brisk pace and the present year will be one of the best on record for wheat exports.

Even so, it is vitally important for Canada that the world wheat market should not degenerate into chaos. Those in the wheat trade, and government officials concerned, must do their utmost to see that the market remains stabilized. Trade Minister Sharp of Canada has called on exporting members of the IWA to send strong delegations to the meeting of the International Wheat Council in February when the renewal of the Agreement is to be discussed. Canadian farm people will watch with concern the negotiations taking place there.

Feed Grain Policy Only a Start

DELEGATES TO THE ANNUAL MEETING of the Canadian Federation of Agriculture in Regina dealt with an issue that many feared would split the organization apart but they came up with a new policy which met with general approval. The achievement has great importance, for the points of conflict had within them the seeds of a French-English split.

In this case, it was Quebec delegates who led the demand for changes in the CFA's policy on feed grains. They were supported by some English-speaking representatives, but in effect, they stepped into this meeting determined to press their viewpoint vigorously. The ensuing exchange of views may well have been historic. Points of conflict were identified and discussed in a manner which was sometimes heated. The resolution put forward would have called for legislation to see that eastern farmers could get prairie grain at the same price as prairie farmers; end free trading of feed grain in the prairies and bring such trade back under provisions of the Canadian Wheat Board; and it would have asked for an eastern feed grain board set up under government legislation which would be the opposite number of the Canadian Wheat Board in the West, creating an impossible conflict between two government agencies.

Finally, the resolution was made acceptable to both eastern and western delegates, and passed. Here was a policy drafted by spokesmen from all parts of Canada, to meet the needs of the various regions. It was an achievement of note.

One thing that became apparent from the discussion was that people on the small farms of Eastern Canada (or anywhere else, for that matter) face serious problems. They rely on livestock and their major costs involve purchased feeds. If their soil is infertile, or if their acreage is insufficient to grow much of their own feed, the problems of setting up a profitable livestock program are serious in the extreme.

No doubt a Canadian feed grain policy which will assure eastern farmers that sufficient grain is put into position for their use at the lowest possible price will be a step forward. But to imagine that it will solve the problem of troubled farms, or even provide most of the answers, is to be deceived.

One speaker at the convention, Bruce Beer, who is parliamentary assistant to the Minister of Agriculture, pointed out that eastern farmers require western grains to supplement the feed they grow on their own farms. But, he went on, they must also see that every acre of their own farms is growing feed or some other crop that is worth more than the feed grain it could grow.

Despite any feed grain policy, eastern farmers on small farms must develop sound farm enterprises, making full use of their own soil, before they will achieve results comparable to those being gained by farmers in other parts of the country.

FAME and the Future

THE AFFAIRS OF Farmers Allied Meat Enterprises Co-operative continue to give grave cause for concern. It is essential that a comprehensive investigation of the operations of FAME from its inception be held. This may be done under provisions of the Public Enquiries Act or other pertinent Ontario provincial legislation. There has been no suggestion of any misappropriation of funds; however, there is too much that is known and too much which is obscured by conflicting statements, for matters to be allowed to rest.

One of the avowed intents of FAME was "to protect the producers' investment and place FAME in the strongest operating position possible." In contrast with these ideals the situation as we went to press was this:

- In excess of \$2 million had been either lost or spent.
- No president had been announced following the resignation of Clayton Frey on January 16.
- An appeal had been made to the Ontario Minister of Agriculture for "guidance and assistance."
- Subsequently a plea had been made directly to the Premier of Ontario for financial assistance.
- No announcement had been made as to the fate of monies collected in December after the precarious financial position of FAME became known.
- No clear indication has been given as to FAME's solvency. It remains to be seen whether the probable sale of the four sites at Mitchell, Mariposa, Neustadt and Ayr will be adequate to meet the undisclosed liabilities.

It would appear that, for the 13,000 investors, all that can be salvaged is sympathy. For a minority the loss is a personal and tragic blow; for the majority the loss is as much tarnished ideals as financial loss.

Following the FAME debacle there have been numerous recriminations: It was all the fault of an unfriendly press; farmers were to blame for not supporting the co-operative once the Fearman plant was purchased; the Provincial Government and/or other farm organizations could have poured in money; the men of straw who had failed to come forward with large sums of money were the cause of failure

It would be piling tragedy upon tragedy if these ideas were allowed to gain credence.

The failure had its seeds in the negative, dictatorial and suspicious attitude of FAME management. Other farm organizations were needlessly alienated; members were either misled or kept in ignorance; the press was barred from meetings and at no time had access to the caliber of documented information available from any business in which the public invests.

The sad spectacle of FAME, even in its dramatic failure, can have one lasting contribution to organized agriculture in Canada. The awesome results which inevitably accrue when all the rules of business and co-operation are disregarded should be long remembered by all organizations in all provinces.

Any, organization which seeks to serve the farmer must first inform him; any membership which fails to ask searching questions, and returns its directorate without a proper accounting, has already sent delegates to the wake. Toil, says the proverb, is the sire of fame.

GASE, Tillage Tools POHERMATCHED

For Extra Profit

The new 1965 Case Tillage line has been engineered and built to stay in step with today's faster, more powerful tractors. In fact, a Case Tractor, powermatched with any of the new Case Tillage Tools will give you the best combination to produce real

savings plus real "on the job" cost cutting reductions in fuel, labour and time.

This year, for extra profit, power-match your tractor with a Case Tillage Tool. See your Case Dealer NOW for the best buy in town!



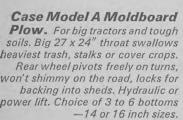
Case 'Seed Master'One-way Disk—Today's most modern W-I-D-E one-way. Unique, once-over, disking-seeding operation saves time, labour and many extra fuel dollars. The 'Seed Master' has a large reinforced seed hopper with a capacity of

1½ bushels per foot of cut, famous Case seedmeters provide accurate, uniform flow of seed at all times, fertilizer attachment optional. All wheels steer left or right for better control. Available in 12, 15 or 18 foot sizes, with 24, 30 or 36 disks





Case Heavy Duty Chisel
Plow. Strength to plow 15" deep
... clearance to handle heavy trash!
Unsurpassed for heavy duty year
round tillage, preparing seedbeds,
stubble mulching, etc. Rugged
4 x 4 inch box frame is braced with
heavy cross angles bolted for
maximum strength. Vibrating teeth
shed trash like a duck's back sheds
water. Hydraulically controlled
wheels regulate work depth, lift the
bolow high for trash and transport.
Choice of spring cushion or rigid
clamps, 22 or 32 inch shanks.
Sizes 10 to 17 foot.







Case FCW Wing-Type Cultivator. Big 23½' to 32' sizes for ig tractors, big acreages. Hydraulic 4-wheel depth control. Hydraulic raising, owering and wing lift for fast, safe transport. Alloy spring steel shank with live helper leaf for added strength, provides aggressive vibrating tooth ction for instant trash shedding.







CANADIAN POTATO MARKETS will remain strong for the next 2 or 3 months as the result of exports to the United States. This situation stems from last year's short crop in the U.S. No change is expected until new crop spuds from southern U.S. are available in heavy volume in late spring.

IMPROVED RAPESEED PRICES reflect unexpected demand from European and other countries which are not regular customers. Even so, Japan continues to be a major customer and indications are that this business will account for a big part of this year's export trade. Good prices will continue.

BARLEY EXPORTS continue to exceed last year and demand is strong for malting barley. At the same time feed use is substantial. Barley carryover as the crop year ends will be down and looks like farmers could plant another million acres of this crop in 1965 to assure supplies for 1965-66.

TURKEY PRODUCERS should avoid overoptimism even though storage stocks are
moderate as the result of heavy holiday
sales. U.S. predictions are for a
slightly bigger crop this year with U.S.
prices averaging probably a cent a pound
less for liveweight birds than in 1964.

HOG PRICES should stay in the \$25-\$30 range (Grade A, Toronto) for the year with the average closer to the top. Prices could weaken during March and April but will then rise under strong demand both here and across the line.

FED CATTLE PRICES will fluctuate more this year and over a wider range as record shipments, particularly in first half of the year, hit the markets.

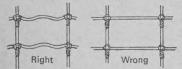
RYE EXPORTS are slow, the market dull. This reflects heavy U.S. supplies which give little reason to expect improvement in markets and offers the prospect of increased carryover.

FLAX MARKET should continue firm though price rise will be modest. Export demand, particularly from Britain and Japan, is good but supplies appear ample.

EGG MARKETS will continue to be heavily loaded. However, prices may improve slightly as Government purchases of egg powder for the World Food Program take care of some of the surplus.

Let's chat with John Blakely about the effects of stretching woven wire too tight

Forty rods of farm fence wire contract and expand several inches between the warmest days of summer and the coldest days of winter. Woven fencing is manufactured with tension curves or crimps that will absorb this contraction and hold the tension as the wire expands again the next summer.



What happens when you stretch too tightly, is that you lose the crimp and the wire will be permanently stretched. The result is a loose fence when the wire expands in the summer. As wire that is stretched too tightly contracts, it can pull posts out of line or lift them, damage corners, and can result in broken wire.

You will seldom stretch wire too tight by hand. If you do use a tractor for stretching, make sure not to stretch the wire too tight. Watch the crimp in the wire. When it first starts to flatten out, you know your fence is tight enough.

When it comes to choosing the wire, see your Stelco Fence Dealer. He has a complete line of Frost Brand farm and specialty fencing, barbed wire, posts, gates — whatever you may need in fencing material.

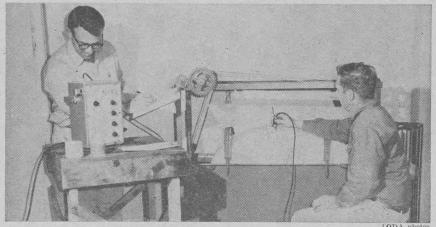


THE STEEL COMPANY OF CANADA, LIMITED

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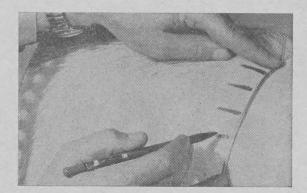
Ultrasonics Measure Loin Eye Area in Live Pigs

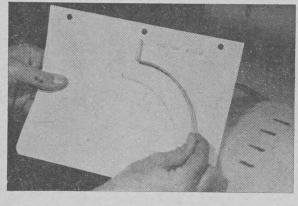
• The method was demonstrated at the Western Ontario Swine Conference this month



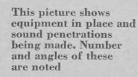
Prof. G. Norrish and his assistant use ultrasonic equipment in swine tests

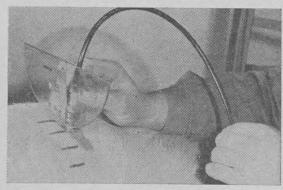
A band of hair 2 in, wide is closely clipped over pig's last rib. Clipped area is marked with a wetted indelible pencil at 1-inch intervals. Body curvature is obtained with a piece of solder wire

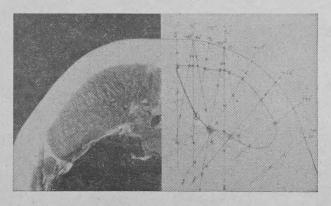




The next step is to mark the curvature off on graph paper







Measurements are plotted on graph paper, then loin eye area drawn in. Illustration compares estimated and actual loin eyes

YOU DON'T HAVE to kill a pig to find out its back fat thickness and loin eye area any more. Ultrasonics now makes it possible to locate individual live pigs with large loin eye areas and with proper back fat thickness. The method should make it possible for swine men to move forward more rapidly in their testing and breeding programs.

Carcass characteristics are more heritable than some other characteristics of hogs. These will respond to selection and, as a result, says Prof. G. Norrish, Ontario Agricultural College, greater emphasis should be placed on them in any swine improvement program. Characteristics with a high heritability are: back fat thickness (50 per cent heritable); loin eye area (48 per cent); carcass length (60 per cent); leg length (65 per cent); carcass muscling (40 per cent).

A technique for the use of ultrasonics in swine improvement has been developed by Prof. Norrish. It is similar to one developed at the University of Missouri and which is being used for a field testing program. Norrish points out that evaluation of pigs by ultrasonics does not replace any other method of testing swine. It can be used with other tests such as ROP to give more performance information and to reduce the time required to identify superior breeding stock.

Norrish says the method provides an accurate estimate of the size of the loin eye in the live pig and of the back fat thickness.

Crossbreeding No Influence on Quality

"THE ABILITY of a sow to farrow and rear a large number of healthy, thrifty pigs is the dominant factor in profitable swine production," says Dr. M. E. Seale of the Department of Animal Science, University of Manitoba. Maximum productivity in terms of litter size and survival to weaning is likely to be realized only when the sow is a crossbred, or more accurately speaking, a hybrid. Regardless of the method of crossbreeding, the sires involved are purebreds.

Many producers have condemned crossbreeding because they have experienced a drop in the percentage of A grades following its adoption.

The facts are that crossbreeding itself will neither improve nor impair carcass quality. This trait is entirely dependent upon the carcass excellence of the parents used in the cross. Where crossbreeding has been used, the producer has often resorted to the use of sires of inferior carcass merit. The same sires would have performed no differently in a pure breeding system. Satisfactory carcass grades will result only if the breeding stock possesses a high level of genetic merit. V

chevrolet '65



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A GENERAL MOTORS VALUE

CFA Writes Policy

Calls for • \$3.50 support price on milk

- New feed grain policy
- Subsidy on wheat exports

Canada's organized farmers, through the Canadian Federation of Agriculture, wrote new policy on two contentious matters and dealt with a host of other subjects as well, at their annual meeting in Regina.

First of all, the CFA delegates endorsed the policy of the Dairy Farmers of Canada, which had been hammered out the week before, and which called for an increase in the level of overall supports for milk for manufacturing purposes of something like 50ϕ per cwt. In effect, they demanded a price support equivalent to about \$3.50 per cwt. of milk.

The other contentious issue was feed grain policy. Delegates spoke frankly on the subject, differed vigorously on some matters with an East-West conflict threatening at times, and finally drafted a compromise policy which met with general approval. It called for broader powers for the eastern and B.C. feed grains agency for which the CFA has been pressing. The broader power would give the agency, if government agrees to set it up, power to buy, store and sell feed grain in order to stabilize prices and prevent speculation. The fight for these powers was led by spokesmen from Quebec. Before the revised resolution met approval, it was specified that the agency would not be the sole buyer of grains for eastern feeders, nor would it replace or take over the private trade, but it would have power to acquire feed grain stocks and to sell them if necessary.

Western spokesmen had pointed out that a government board which would simply be the opposite number to the Wheat Board, except operating in Eastern Canada on behalf of eastern farmers, would create impossible conflicts. They pointed out that the operations of the Canadian Wheat Board are financed by farmers themselves even though the board is a "creature of government."

It was apparent during the discussion that some eastern delegates feel that feed and mixed feeds are too costly because of the margins taken out by speculators and those who are handling the grain. They wanted protection from "the middleman."

An attempt by some delegates to defer decision on the matter was defeated and the discussion went on to a final decision.

Some observers pointed out that this was the first time a Quebec group had expressed its viewpoint vigorously at the CFA annual meeting and that the final reconciliation of views, as expressed by the resolution, represented one of the best pieces of work delegates have done. Certainly many delegates came out of the discussions with a far greater understanding of the total farm situation in Canada than they had possessed before.

Want Dairy Supports

The resolution on dairy policy which was adopted with very little discussion was also a momentous one. It called for price support and other export and consumer subsidy policies for the coming year to provide a price to the producer of \$3.50 per cwt. f.o.b. factory as a minimum.

The reasons stated for the demands are that costs for dairy farmers are rising rapidly and that present government policy has reduced dairy surplus almost to the vanishing point. The possibility of serious surpluses arising if the policy is implemented is limited for several reasons, stated the CFA: costs are rapidly overtaking this particular price; increased production will be needed in the years ahead; and it takes time to increase milk production

In detail, the policy asks that market price supports, deficiency payments, consumer subsidies, and export subsidies should be employed to gain this support price. It asked for a continuation of price supports for butter; a support level for butterfat so that through a consumer subsidy returns to producers who

ship farm-separated cream may be maintained; a deficiency payment on whole milk for manufacturing; and skim milk powder price supports. Also, export subsidies would be required to move some of the products into export. The program if adopted would raise butterfat prices to the producer from 64¢ to 67¢. Skim milk powder would be supported at 15¢ per lb. and an additional deficiency payment paid to producers. The shipper of farm separated cream would get a further payment of 10¢ per lb. butterfat. A market support for cheese of 35¢ a lb. would be called for as well as a deficiency payment for milk shipped for cheese-making, to bring returns to \$3.50. A subsidy would be paid on milk shipped for casein. Finally, fluid milk producers would receive the minimum prices for that part of their milk sold for manufacturing.

The resolution also restated the intention of Dairy Farmers of Canada to work toward a national authority for dairy product marketing to bring production and marketing of dairy products onto a more orderly basis.

Wheat Subsidies Asked

Wheat growers also turned to government in one resolution in which they urged it to subsidize wheat export to the extent necessary to prevent Canadian producers having to compete with the national treasuries of other wheat exporting countries. Another resolution asked government to consider making

(Please turn to page 65)



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News Highlights

As a contribution to the World Food Program, the Canada Department of Agriculture will purchase about 250,000 pounds of powdered whole eggs or the equivalent of about 25,000 30-dozen cases. The World Food Program is an organized effort by governments to make food available quickly to meet emergencies, to raise nutritional levels of children and to use food as the capital asset in assisting economic development. Since it went into effect 2 years ago some 70 countries have contributed more than \$94 million toward it. Canada is the third largest contributor exceeded by the United States and Germany.

The current quota system for wheat is an obstacle to intensified production because under it there is no reward for efficiency of production. This is the view of Dr. D. A. Rennie of the University of Saskatchewan. He said recently, "No one, however bright, can figure a sound way to finance farming at below optimum production but this is what our farmers have been asked to do in the past." He said that since the quota system seriously curtails per acre production it is imperative that grain delivery quotas be changed to overcome the factors that keep yields and per acre profits

Farmers have been called upon to contribute direct financial support to agricultural research. Dr. B. W. Currie of the University of Saskatchewan says the agricultural industry should sponsor directly some of the research needed to make it prosper. He said that an average of 500,000,000 bushels of grain is raised each year in the prairies. "A levy of a cent a bushel or even 1/5 of a cent could support an institute of crop production which, from its researches, could ultimately return the amount expended many times over."

The Canada Dept. of Agriculture has signed a contract that will put into operation the first of four special test farms proposed for Canada. Under the agreement, G. D. Brown will operate a 200-acre test farm near Almonte in eastern Ontario. Under the program, a farm is also planned for the Maritimes, one for Quebec and one for Western Canada. Each farm will serve as a model to show farmers how they can get the most out of their operations. The farm near Almonte will be geared to the problems of eastern Canadian farmers whose lands are marginal and whose incomes stem mostly from the production of milk for manufacturing. For the Almonte project, a herd of 65 Holstein cows will be supplied by the department and they will be bred to beef bulls.

The annual meeting of the Manitoba Federation of Agriculture has unanimously supported the organization of the Manitoba Farm Bureau. The meeting recommended (*Please turn to page* 65)



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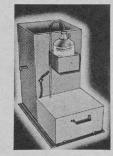
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A Glance at Herbicides for 1965

There are new uses for some chemicals, while problems have cropped up with others

Edited by ROGER FRY

WILD MILLET

Wild millet, also called green foxtail, can now be controlled chemically so that it is no longer as great a threat to continuous cropping.

Two to 3 lb. of TCA will control this weed in oats and barley. For flax, field peas (not canning peas), rape and sugar beets, 4 to 6 lb. are recommended. In all treatments farmers must apply 10 to 15 gal. of water to reduce crop damage.

Dalapon can also be used at ¾ lb. in flax, rape and sugar beets. As yet there is no control for wild millet in wheat and corn.

DICAMBA

Dicamba, introduced in the 1964 recommendations, has proven to be a useful chemical in the control of

wild buckwheat, tartary buckwheat and ladies' thumb. It was recommended for use on wheat and oats, and is usually sold as a mix with 2,4-D or MCPA. Some crop damage may be visible but yield losses have not been recorded. Dicamba has not been released for use on flax crops; however, it will be recommended for use on barley in 1965.

Dicamba and its mixtures must be used very carefully as there is very little safety margin for either excess dosage or late application. Recommendations are 2 to 4 oz. applied at the 3- to 4-leaf stage of the crop.

CORN

Corn growers in prairie areas will not be advised to use Atrazine on their corn. It has not been giving consistent control and there have been some carryover problems in low rainfall areas.

The recommendation for 1965 will be DNBP, a pre-emergence control for broad-leaved weeds and annual grasses. Growers can also use 2,4-D and MCPA for the susceptible broad-leaved weeds, Dalapon for wild millet control and Avadex for wild oat control.

PROBLEM WEEDS

Wild buckwheat, the smartweeds and redroot pigweed have become problem weeds in some areas of the West. John Howden, weed specialist with the Manitoba Department of Agriculture, says they do not have to be a problem. These weeds are moderately resistant to 2,4-D and MCPA. At the rates that some farmers apply these chemicals to their crops the weeds have been left undamaged.

By applying 10 to 12 oz. per acre when the weeds are still in the seed-ling stage, good control is possible. The seedling stage is over when the third pair of leaves appear. If this is too early for the crop to withstand 2,4-D the treatment can be split, using 6 oz. of MCPA followed a week later by 6 oz. of 2,4-D.

SHELTERBELTS

Gramoxone, also known as Paraquat, can be used as a direct spray on weeds in shelterbelt plantings. Simazine has not proven to be as effective as early trials indicated and will not be recommended until further work is done.

Gramoxone is a contact herbicide, only killing the vegetation it is sprayed on. It loses its potency after contact with the ground. For this reason, second and even third treatments are needed to control regrowth.

HEMP NETTLE

Cellatox is recommended for control of hemp nettle. It will also control other weeds susceptible to 2,4-D and MCPA.

Use Chemicals for Wild Oat Control

Delayed seeding cut back wheat and flax yields severely in these trials. So did the presence of wild oats. The best answer may be chemical control

WEED CONTROL trials in Manitoba last summer showed that prairie grain growers are losing heavily to wild oats each year, probably without realizing it. Dr. George Friesen of the Plant Science Department, University of Manitoba, carried out the work, and showed that delayed seeding, the method commonly used to control wild oats, is a costly method, even when it does give effective control. The reason is that it cuts back crop yields so severely that profits are lost. If delayed seeding fails to control the weeds (as it sometimes does) Dr. Friesen says the results are even worse. Yields suffer the double setback of delayed seeding and of weed competition.

Dr. Friesen carried out his trials at the Glenlea Research Station of the University in 1964. Flax seeded in good time (May 29) and grown under weed-free conditions yielded 18.4 bu. per acre. When seeding was delayed till June 10 (which is recommended by some authorities), yields were down to 11.6 bu. Results were even worse when flax was grown under moderately weedy conditions (50 wild oat plants per square yard). Seeded on May 29, yields were 10.5 bu. per acre, compared to only 3.6 bu. per acre when seeded June 10. With heavy infestation (100 wild oats per sq. yd.) early seeding resulted in a yield of

7.4 bu. per acre and only 2.3 bu. when seeded June 10.

In these trials, delayed seeding alone cut back yields substantially. But when the weeds grew as well, yields fell off drastically.

The lesson is clear, says Dr. Friesen—the way to grow flax is to seed early, and use chemicals to control the weeds. It's the most efficient way to do the job. The 3 or 4 dollars per acre spent on chemical weed control is money well spent.

Dr. Friesen's trials showed the tremendous damage done by wild oats growing in wheat. Wheat grown on summerfallow, and fertilized, yielded 27.8 bu. per acre when there were no weeds, but only 18.2 bu. per acre when there were 100 wild oat plants per sq. yd. (an average infestation for wheat) and only about 12 bu. per acre when the infestation was heavy, (160 to 190 oat plants per sq. yd.). When wheat was grown on fallow without fertilizer, the cost of weeds was even more severe. Where there were no weeds, yields were 27.5 bu. per acre, but only 22.1 bu. where there were only 10 wild oats per sq. yd. (a light infestation), and only 11.3 bu. per acre where there were 100 wild oat plants per sq. yd.

The picture was roughly similar on stubble. On weed-free fertilized

land (100 lb. 16-20-0) yields were 21.7 bu. per acre, compared to less than half that (10.8 bu.) where there were 100 wild oat plants per sq. yd. On unfertilized land, yields were 14.4 bu. wheat per acre where there were no weeds, but this fell to 9 bu. under average wild oat competition (100 wild oat plants per sq. yd.).

How valid would last year's results be for other years? Dr. Friesen admits that further trials are necessary. However, he adds that the growing season in 1964 was sufficiently normal that the results he got are probably close to what he would get in most future years.

Dr. Friesen's results seem to mean that prairie farmers can't afford not to take another look at their wild oat control program. He says there are about 40 million acres infested in the prairies, half of them severely. It costs 3 or 4 dollars per acre to control those oats chemically, but it costs a whole lot more to control them through the delayed seeding method, or to ignore them.

Crops Specialist John Howden of the Manitoba Department of Agriculture is quick to endorse Dr. Friesen's work. He recalls that delayed seeding was commonly recommended with barley which is a fast germinating crop. However, now that barley is less widely grown, he says losses from delayed seeding of flax and wheat are bound to be great.

Some years, of course, and under some conditions, chemicals probably won't pay for weed control. But he says that year in, year out, with crops like flax and wheat, farmers would be money ahead to use chemical weed control for wild oats. Figure out your costs of delayed seeding as compared to your costs of using chemicals, and the chemicals will usually be the cheapest, he adds. \vee



Most effective wild oat control is through spraying

14



Elton Steven and 4 of his 5 brothers stayed home on the farm. Long-term planning by their dad, Arnold (right), made their decisions possible

Planning That Works

To keep 'em down on the farm takes the kind of planning that results in adequate net income and the smooth transfer of the farm from one generation to the next

GOOD FATHER AND SON agreements are rare; at best, they provide for short-term transitional arrangements. But, according to Prof. Art Robertson of Ontario Agricultural College, "The thing that keeps a father and son agreement working well over the years is a decent income; \$5,000-\$10,000 is usually required for two families and this will necessitate an investment of from \$50,000 to \$100,000. What is needed in many cases is not a father and son agreement but long-term financing. Frequently the planned gross is realized, but not the desired net income."

It is necessary, not just for the individuals, but for Canadian agriculture, that solutions be found to the knotty problems of the next generation; only if there are attractive rewards for those who elect to stay on the farm will the "brain-drain" be stopped.

Some father-son arrangements have no legal or practical value. They provide only the illusion of responsibility. Merely adding "and sons" to the lettering on the barn is not enough.

Says Dr. Howard Patterson, ODA economist, "You cannot have divided authority. One person

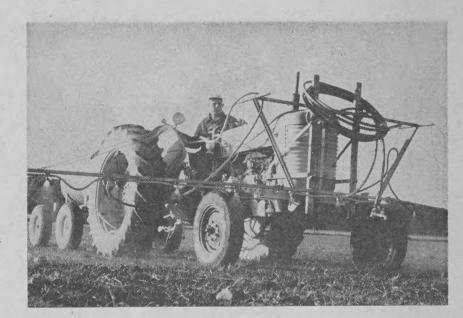


Herb Fiddes and his sons of Lower Onslow, N.S., expanded their laying flock, developed a strong marketing program, so the boys stayed home

by
PETER
LEWINGTON

Field Editor

Verne Bilyea concentrates on a good custom business to finance his expanding farm operations



has to be able to make the final decisions. This is the rock upon which most arrangements founder; only where there has been provision for the son to make his own mistakes have they succeeded. This is often the hardest thing for a father to accept. If the son is strong-minded, he won't succeed unless he has the authority to make decisions and the responsibility to provide for the payment of bills."

Harry Greenwood, Mitchell, Ont., took over some of the reins at 24. "I couldn't have a better dad," says Greenwood. "Authority must be transferred to the son when he is young and ambitious." At Fredericton, N.B., A. D. Neill has brought his sons Ronald and Albert into the family farm business. "If the boys hadn't decided to take up farming," reflected Mr. Neill, "I wouldn't be farming now either. It has given me a great feeling of assurance that I can step out and leave the management in capable hands." The Neill boys amicably divide responsibility; the good Holstein herd is Albert's prerogative, while Ronald is responsible for the machinery and the field work; in winter he helps with the chores, works in the woods and does some custom snow plowing. Says Ronald Neill, "The three of us discuss the big decisions, like capital expenditures, but individually we make the day-to-day de-

cisions. It helps, too, if you really enjoy your own part of the operation."

Provision for the next generation is a complex business. The details of agreements will vary, but in every instance there are basic needs which have to be provided for:

- · Adequate income for more than one family.
- The parents' retirement and perhaps the needs of a widowed mother.
- An equable division among the heirs. (As one irate daughter put it, "Why is it only the sons who are considered?")
 - Proper housing, or the city lights will beckon.
- Long-range planning for the smooth transfer of authority.
- Plans to keep Federal income, gift and estate taxes and (where applicable) provincial succession duties to a minimum; provision must also be made for paying these levies.

With realistic planning there will still be problems; in the absence of planning there is chaos. On one otherwise excellent family farm the boys were in reality just cheap help; the "boys" were in their fifties when they finally took over, by which time they were singularly ill-equipped to make decisions. Then there was the Dutch family which plowed all its savings into the farm; the



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Division of responsibility is essential for success; Ronald Neill (above) takes care of the field work, brother Albert manages the fine dairy herd

younger sons had no equity and to their dismay found that they had still only capitalized an operation adequate for one family. Another family agreed that the equity in capital investments would be equally divided between the father and two sons; one-third of a \$6,000 silo, sitting on dad's land, poses a problem which even Solomon couldn't resolve!

Equally dangerous was the unwise expansion of one father-son team which incurred \$162,000 indebtedness with little possibility of orderly debt retirement. The other extreme was the father who clung tightly to the reins and expected his sons to ask when they needed grocery money or some new trousers for little Willie.

TRAINING IS NEEDED

As widely different plans for the next generation are examined, certain patterns appear. A key one is training for the challenging problems which will have to be met. Joe Loewith of Copetown, Ont., is a Czech immigrant who worked out for years and now has an efficient dairy farm, catering to the Hamilton milk market. Harry, the eldest of three sons, is back home after 2 years at the Agricultural School at Ridgetown. Loewith is already thinking in terms of incorporation. Harry Greenwood, an OAC graduate, recalls, "I got good value from my time at college. I know why things happen and this helps me to assess and correct mistakes. I've been taught to be observant and to be conscious of the value of research. As a bonus I know individuals I can query when problems

arise." Elton Steven, who farms in Lambton County, Ont., with his father and four brothers, says, "4-H and Junior Farmer club work have provided all of us with an added interest in good livestock."

More and more farmers have become aware of the need for training, if the prizes of the new era in farming are to be theirs; they are learning money management, and they have an insatiable thirst for knowledge of production and marketing. Field days and short courses, which have the caliber of information which they want, will attract rapt attention. "That extra knowledge," says Ronald Neill, "is not a hard thing to carry around."

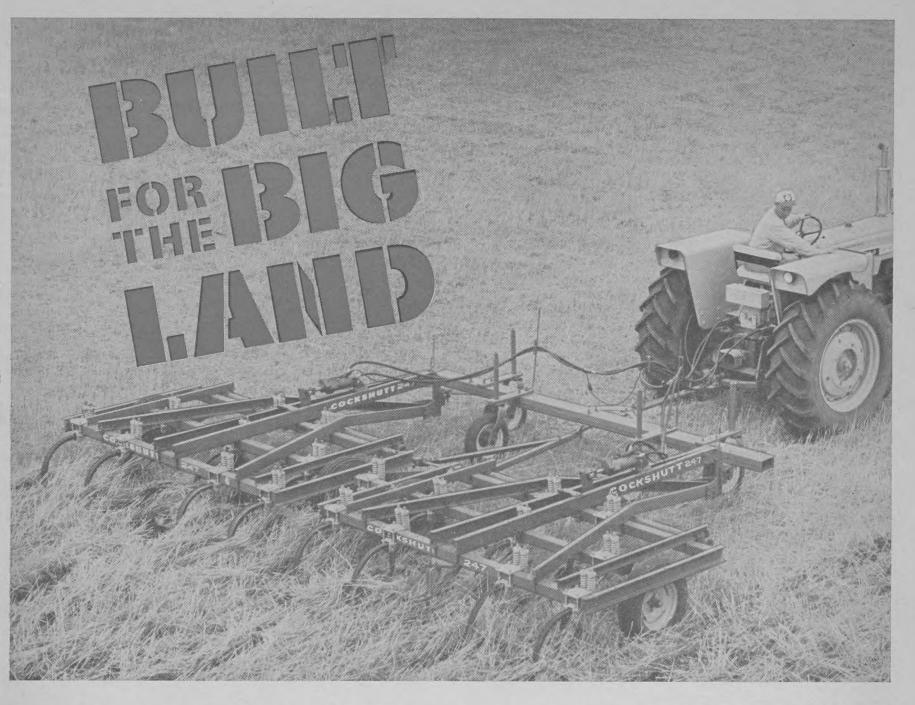
Expanded income is obviously a prime essential; how can it be achieved? Morse's Farm Ltd. at Berwick, N.S., now provides for four families. Eighty-year-old Percy Morse farms with his brother and his sons. "You know," says Morse, "growing things just keeps me feeling young. At one time they used to say of this farm that if a jack rabbit was going across it he'd better take his dinner!"

In 1964 there was plenty for dinner there. Some of the best alfalfa to be seen in Eastern Canada was boosting milk production in the Morse herd; eggs were sold at the farm gate and still more went to 12 retail outlets; 5 acres of strawberries were irrigated; sweet corn, carrots, tomatoes and squash all have made a contribution to increasing income.

Verne Bilyea, of Ilderton, Ont., bought his own 100 acres 2 years (Please turn to page 66)



"Now that our farm's income is sufficient to support four families, I'm stepping out of the picture," says 80-year-old P. L. Morse of Berwick, N.S.



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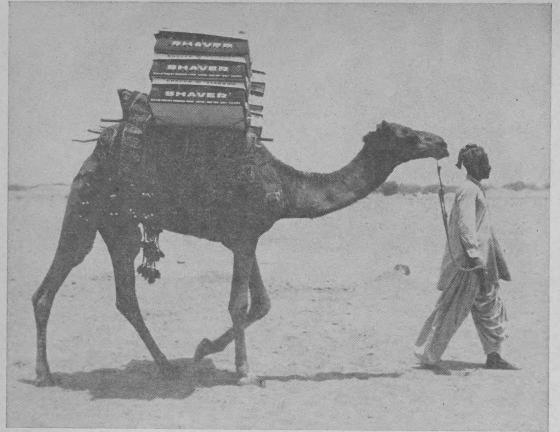
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Federal departments: Agriculture, Trade and Commerce, Finance and External Affairs. As farmers, we cannot indulge in such a detached viewpoint, however desirable it may be for senior

levels of government.

Thirty per cent of our agricultural production is exported and currently this accounts for 20 per cent of our entire industrial and agricultural exports. Agricultural exports have stabilized at these proportions and are significantly reduced from the postwar years when agricultural production accounted for one export dollar in three. In value, agricultural exports exceed one billion dollars; what is less generally realized is that our agricultural imports have been rising and are now nudging the billion dollar mark. Agriculture is the traditional bellwether of any national economy. The decline in Latin America, especially in Argentina, where agriculture fell into neglect, is a comparatively recent example. By any yard-stick Canada is an important net agricultural exporter; before the vast wheat sales make us too complacent it would be as well to see if we are doing enough individually and nationally to hold and even extend our share of world markets.

The CREST of the TRADE TIDE

(Part I of a series)

by PETER LEWINGTON

Field Editor

Canada has achieved trade activity which has only been surpassed by the far more populous nations of U.S.A., Great Britain, Germany and France. Our export trade pattern over the years tells the story of our economic development; fur, fish, lumber and wheat; then the newsprint from our forests and the minerals from our mines; latterly the emphasis has swung to industrial exports. "Where," it is time to ask, "goes agriculture?"

Food Exports . . . and Imports

ARE WE SERIOUS about agricultural trade? In the case of wheat and oilseeds, there can be little question; with 75 per cent of total production going into export channels, the entire production is export oriented.

However, there is no room for confusing desirable reserve stocks with surpluses. Hubert Humphrey, now U.S. Vice-President, put this

A RECENT NEWS ITEM had the "coals to Newcastle" touch; it didn't rate very much space despite the fact that, for Canadian farmers, it was significant and symbolic of a new era in the trade of farm products. It told how egg and bacon pies made in Britain were unloaded at Toronto. Only yesterday, Britain had an insatiable appetite for Canadian eggs and Canadian bacon. Today, on the heels of a period of low egg prices here, Britain has found a lucrative market for these foods in Canada. As if to underline the importance attached to exports, the Queen's New Year Honor's list introduced a special citation, "For Services to Exports."

These events should have a salutary effect on

These events should have a salutary effect on Canadian farmers. The major trade in farm products lies between the highly developed countries. It is largely a buyer's market. The illusion that the export of food is a convenient safety valve to be turned on whenever a surplus appears should be gone forever. It is an anomaly that our foods vie for a place in well-filled stomachs, at a time when more people go to bed hungry every night, than during the privations of World War II.

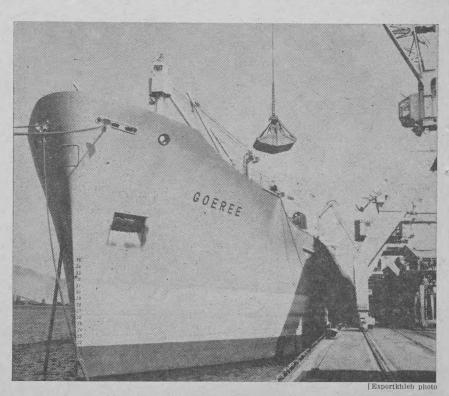
Some storm signals have already been raised. The dramatic wheat sales are not likely to be repeated; Britain, traditionally our best customer, has a balance of payments crisis; the European Economic Community has a unified grain policy; and moves are afoot to extend the movement of agricultural commodities under U.S. Public Law 480. These are some of the economic and political challenges.

Other problems are flavored by moral and humanitarian considerations. Every second there are four more mouths to feed; by the time children born today reach middle age there will be more people in Asia than there are in the entire world nearly 2,000 years after the birth of Christ. As Dean Rusk, U.S. Secretary of State, observed, "The miracle of agriculture has opened the possibility of meeting, by peaceful means, the daily needs of the whole human race."

Will the developed nations be equal to this sobering challenge? What place will the Canadian farmer have in this complex new world of exploding population, vibrant technology and shattered illusions?

Our Federal trade policy is to gain all the trade possible, consistent with peace and negotiated agreements. The overall balance of trade is the paramount concern of government, not the balance of trade within industries. In consequence, our agricultural trade becomes the concern of four

The S.S. Goeree discharging Canadian wheat at the Russian port of Novorssijsk. Vast wheat shipments dominated the 1964 trade scene in Canada



neatly when he said, "Our policies sometimes create the impression that the fruits of our farmers' labors are so great they are liabilities. To imply, even remotely, that we are trying to get rid of surpluses in our export market is to downgrade the commodity in the eyes of those who might wish to buy it."

The export market is not a rat hole down which we may pour periodic surpluses. The export market demands what the customer wants and in the form in which he wants it; exports hinge on continuity, quality and grading; exports require organization, packaging and promotion.

The market for soft wheat was practically lost through a poor price structure. The Ontario Wheat Producers Marketing Board has brought stability, but its very success has also created some problems. The proportion of the crop marketed, as opposed to that fed on farms, has



Great Britain, traditionally our best customer, earns some desperately needed foreign exchange with which to pay for purchases of Canadian food. British cars, shown above, are now part of Toronto's subway system

jumped from 45 per cent to 65 per cent of the crop. The Board has to find markets in neglected areas. Tobacco is an excellent example of the essential need for continuity of supply. Tobacco has recently been sold to five countries which never purchased Canadian tobacco previously. The sales were made possible solely because there was tobacco in storage. Continuity attracts buyers. even as erratic pricing and production repels them.

In Ontario the Food Council and Minister of Agriculture W. A. Stewart have been alert to agricultural exports. Says Mr. Stewart, "In some instances co-operation has to extend to the producer; if we are to compete successfully with the Italians in the U.K. market with whole canned tomatoes, we have to encourage the grower to plant the variety in demand. Cans of four cobs of corn are so popular that brokers say they can't get enough. In every instance we have to produce for the market, not just sell the surplus.'

In Mr. Stewart's view, the white bean market is a record of lost opportunities. White beans, better known to consumers as baked beans. are grown mainly in Michigan, Ontario and Chile. Despite an 8 per cent tariff and our 921/2-cent dollar the Michigan growers have walked

Sweet corn from Canada is a rare delicacy in such markets as West Germany and Great Britain



away with the lion's share of the 100 per cent increase in the U.K. market. In 1964 the U.S. price for white beans was set on April 8; our price was set in the fall when 75 per cent of the beans were harvested and the best market had already been lost.

Last fall, in an address to the Toronto Board of Trade Club, Mr. Robert Freeman honed a fine edge on the question of our seriousness about agricultural trade. Said Mr. Freeman, "Our company here in Canada handles the advertising account for a gravy-making product called 'Bisto.' The manufacturers of 'Bisto' spend more money on advertising in Canada than the Canadian Government spends on advertising Canada in Britain and more than Britain spends in Canada. Certainly there is a considerable amount of branded Canadian foods on the British market but there are too many small unidentifiable brands. We can think of none of which the British housewife has any cognizance except perhaps Canadian cheese. She is well aware of the varied produce of Australia, New Zealand, South Africa, Denmark and Israel. The real question is, what could Canadian producers do if they really tried? Austria spent \$675,000 on advertising promotion in Britain. New Zealand, South Africa and other countries do much the same sort of thing. In parallel with these promotional efforts, there has occurred a growth of realistic and attractive images of these countries in British public mind.'

The U.S. is of comparable importance as both the U.S. and Britain take between 25-30 per cent of our agricultural exports. Japan and West Germany are our next best customers while products of our farms move to a further 112 countries. If wheat is excluded, the U.S. is our best market and our major one for cattle, beef, pork, oats, barley, apples, potatoes, turnips, clover and grass seeds and maple prod-

The U.S. looms large in our agricultural purchases. In fact, we import just double the volume which we are able to sell in that market. This includes fruits and vegetables which are either not produced in Canada or are only available in certain seasons. It also includes \$165,000,000 worth of corn and soybeans, much of which we could produce for ourselves. In fact, of our entire agricultural imports, 40 per cent are of the type which can be produced in Canada. The duties on agricultural imports are lower than for all imports. Forty-four per cent of agricultural products come in duty free while the average duty is some 8 per cent, mostly seasonal fruit and vegetable levies. No case can be made that our farming is a protected industry.

The potential market for agricultural exports should not be oversold, neither should it be promoted to the detriment of our best customer, the Canadian consumer. However, there are specialized markets to be cultivated. There are also areas in which we can do more for ourselves. Fortified apple juice can reduce citrus requirements; specialty cheese imports in several recent years have exceeded our exports of cheddar and even in the current big export year, will be half the volume of exports.

Says Ontario's W. A. Stewart, "It is no longer good enough to produce in a haphazard way, hoping to meet domestic requirements and then dispose of any surplus that may occur. It must be our job to find and develop markets and then produce for those markets." \lor



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Here are just a few of Long Island's ducks

How Duck Farmers Increased Their Sales

When low prices threatened their industry, Long Island's duck farmers got together, called on federal and state governments for aid in marketing their ducks, and now sell more than ever at better prices

by GEORGE GOLDSBOROUGH

ALONG THE SHORES of the eastern end of Long Island lives a colony of ducks.

These birds form the foundation of a \$30 million industry which has recently "pulled itself up by the bootstraps."

This is the Long Island Duckling Story . . . how nine immigrant ducklings became a 7,500,000 duckling-per-year industry . . . how a one-time "specialty item" became a regular menu item in many homes . . . how successful marketing improvement work saved a valuable industry.

It's also the story of a unique form of co-operation between the U.S. Department of Agriculture and the New York Department of Agriculture and Markets.

Long Island has long been known for its ducks, but the present duckling industry began in 1873 when the first Peking ducks were imported by a New York merchant named McGrath, who had seen a white duck near Peking, China, which was so large he mistook it for a goose.

Today, the Long Island duckling industry serves most of Canada and the United States, and ships many ducklings to overseas countries. With 90 per cent of the birds marketed frozen, the duckling is now available year-round, and in any part of the world.

The duckling business is important locally in Long Island. Not only is it a \$30 million business (figuring the value of farms, packers, feed dealers and other marketers), but it also employs more than 1,000 persons locally, furnishing the community with \$3,500,000 annually in salaries.

The duck industry on Long Island

is a healthy, thriving farm industry
—but it wasn't always this way.

In 1960 prices hit a striking low, averaging below production costs. Millions of pounds of duckling were in storage, needing a sales outlet. Long Island farmers almost without exception lost money on 1959 sales and at the beginning of the 1960 season faced serious financial difficulties.

Some of the problems of the Long Island industry were: (1) Most duck production is during the summer, while peak sales months are in the winter; (2) although Long Island raised 75 per cent of the nation's ducklings, other areas benefited from the Long Island industry's promotion and prices; (3) lack of organization plagued the industry with irregular bidding and advertising.

In May 1960 the Long Island Duck Farmers Co-operative, Inc., was formed by 44 duck farmers, to devise a unified promotion and marketing program. Members included nearly all of Long Island's duck farmers and the co-operative set about to solve some of the industry's problems.

At first it appeared that the cooperative had been formed too late. With 5,670,000 lb. of duckling in storage, the co-operative's leaders realized that they must somehow sell more ducklings per week for an entire season than had ever been sold in a single week in the history of the Long Island industry.

At this time, the Long Island farmers sought the assistance of the New York Department of Agriculture and Markets. The project was approved for Matching Fund support from USDA's Agricultural Marketing Service, and a full-scale promotion campaign was launched.

In 2 months, with the help of the New York department, more than 4 million lb. of duckling were marketed!

This was only the start. The promotion was put on a year-round basis, to obviate the need for similar "crisis" campaigns.

The New York promotion unit then conducted a complete "Marketing Survey" which showed marketers exactly what the markets for ducklings were, who bought them, when they were bought and how far they were shipped. This survey showed dramatically that the Long Island duckling was sold nationally—and that any successful promotion campaign must be carried out on a national, rather than a regional, basis.

There are other marketing improvement activities:

The New York department helped develop a marketing program around the distinctive "Genuine Long Island Duckling" seal to identify the product at the retail level and to serve as a focal point in national promotion.

The industry started marketing "cut-up" ready-to-cook duckling in frozen form for "instant" frying and barbecuing. An industry - financed promotion program on this was also carried out with the help of the New York Department of Agriculture and Markets.

All ducklings coming from the Long Island Duck Farmers Cooperative are inspected for wholesomeness by USDA's Agricultural Marketing Service, and graded for quality under a Federal-State program. This assures the consumer of high quality poultry when buying the co-operative's product.

Another Federal support to this project was also provided by AMS, through its Plentiful Foods Program. When stocks of duckling were at their peak, the Department placed ducklings on its Plentiful Foods list and informed food editors of the availability of frozen ducklings. This program is designed to help farmers by enlisting the know-how of marketers and at the same time letting the public know what foods are in large supply — thereby providing a demand to match the market.

All in all, the Long Island duckling program has been — and still is — an outstanding example of Federal-State-industry co-operation.

The industry itself took the initial step — by organizing for marketing and promotion, and by enlisting the aid of Federal-State marketing officials

The New York Department of Agriculture and Markets played a major role in improving the marketing conditions through promotion, advertising, research and counselling.

And the U.S. Department of Agriculture, through its Agricultural Marketing Service, contributed in three ways: by making available Federal inspection and Federal-State grading services, through its Plentiful Foods Program, and through the Matching Fund marketing service program, which provided part of the funds used by the State department of agriculture.

This latter activity, the Matching Fund Program, is a self-help marketing improvement program, in which State funds are matched by Federal funds for programs in quality improvement, market development, marketing efficiency and information.—Author George Goldsborough is employed by the U.S. Department of Agriculture.

Take Another Look at Rapeseed

Although rapeseed is still a stranger to many Canadian farmers, a growing corps of producers are spreading the word that this crop has a place in prairie agriculture

A Staff Report

THE MARKET FOR RAPESEED seems to be growing in leaps and bounds. The seed is becoming a significant Canadian export and there is indication that the demand from such countries as Japan could expand enormously in the years ahead. Rapeseed got a big boost a year and a half ago when a futures market for it was set up on the Winnipeg Grain Exchange. This is the first futures market for rapeseed anywhere and substantially broadens the base for the export of this crop. It means the crop is sold in a similar fashion to its competitor, soybeans. Some close observers in the trade think that rapeseed has been underpriced but that now it is finding its real level.

The crop got another boost this year when new buyers came onto the market. About a fifth of the crop was bought up by countries that are normally exporters. Czechoslovakia, Poland and Pakistan were among them. These purchases resulted in excitement and speculation over future demand. Even the under-grade rapeseed which was plentiful last year, and which a few months ago seemed to present a real marketing problem, has sold rapidly. Apparently buyers in Europe can use it for perfume.

With present market prospects, some people in the trade see 1964 acreage of nearly 700,000 acres doubling within a year or two.

It's one crop that Canadians can grow but Americans can't grow. Since it represents an economical source of protein, the demand for rapeseed and rapeseed meal could grow rapidly in the United States.

Rapeseed is adapted to Canadian growing conditions. The cool summer temperatures and long light periods favor formation of the oil-bearing seeds. Rapeseed produces more oil per pound of seed than soybeans and this gives it an edge in the oil seed market. In other words, Canadian farmers have a North American monopoly in the production of an oil seed which is very competitive in the export oil seed market.

The crop could be just what prairie farmers are looking for. An acre of rapeseed often returns

a grower more than an acre of wheat. Now that the trend is to more intensive use of land, a rape-seed crop can take the place of summerfallow. Once a stand is established, it competes vigorously with weeds. It is a cash crop which gives the wheat farmer an opportunity to diversify.

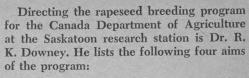
It has surprising adaptability. One grower got yields of 1,800 lb. per acre in Manitoba's interlake country, which is one of the less fertile areas of the province.

Rapeseed oil and meal are similar in many ways to soybean oil and meal and as a result they could in the years ahead become competitors. Both of them are good sources of edible oil and protein. At one time, rapeseed oil was not suitable for use in margarine whereas soybean oil was. Now, improved processing methods produce an oil from rapeseed which can be used.

Other problems of rapeseed are being solved by scientists too, now that some research work is being done with the crop. Originally, rapeseed meal contained toxic factors which made it unsatisfactory as a protein supplement. However, modern methods of processing have been devised which will produce a meal which can compete with soybean meal, and researchers are finding better ways of utilizing rapeseed meal. It is already known that laying hens can be fed rations containing up to 10 per cent rapeseed oil meal. It is known that turkeys fed rations containing 121/2 per cent rapeseed oil meal grow normally from 8 weeks of age to market weight; that the oil meal is satisfactory in a mixed supplement for market pigs; that beef cattle can be fattened with it as a supplementary protein. No wonder the future looks bright.

The crop is grown mainly in north-central Saskatchewan and Alberta, and in southern Manitoba. Yields in these favorable areas are often 1,500 to 2,500 lb. of seed per acre, containing 42 to 46 per cent oil. Because much of the acreage is grown outside the area of best adaptation, the average for the country is 750 lb. per acre. This seed contains about 42.5 per cent oil, dry basis, and 42.3 per cent protein in the oil-free meal.

> A heavy crop of rapeseed in a field west of Portage la Prairie, Man, is shown at left



- To breed new varieties which produce more seed per acre, contain more oil per pound of seed, and more protein in the oilfree meal (which is fed to livestock).
- To seek earlier and more uniformmaturing varieties of the Argentine type. This should result in an overall improvement in quality of seed produced on farms.
- To change rapeseed oil chemically so that the oil will be more versatile and valuable in the manufacture of salad and cooking oils, margarines and shortenings. (Dr. Downey says: "We have made a notable advance in this by modifying the make-up of rapeseed oil to where it is similar to olive oil. However, seed of this new type will not be available until 1967 at the earliest.")
- To eliminate the so-called toxic factors in rapeseed meal. (Dr. Downey comments: "Although new methods of oilseed processing have largely overcome the early objections to rapeseed meal as a feed for non-ruminants, the ultimate solution is the removal of the objectionable compounds through plant breeding.")

ONE MAN'S VIEW

One extension worker who sees a bright future for rapeseed is Dave Durksen of the Manitoba Soils and Crops Branch. He notes that there are four crushing plants across the prairies now and that recently the Manitoba plant has announced plans for a major extension. This will increase the demand for the crop. Secondly, he points out that the meal provides an excellent source of protein supplement for livestock rations. He says rapeseed meal has been used for years as a protein supplement in such countries as Sweden and that it could well become a major protein supplement for an expanding livestock industry in Western Canada.

From the grower's point of view, the time seems to be ripe for the arrival of rapeseed too. Durksen warns growers to compare the returns they can get from rapeseed with those from wheat. "If you can make more money with an acre of wheat, by all means grow it," he says. However, in many areas rapeseed does just as well as wheat. This year particularly, prices have been stronger and the crop compared favorably. Again, he advises growers to compare it over a period of years.

He sees several advantages to the crop. With land prices climbing in some areas of the prairies, it is impossible to have much summerfallow and still pay for the land. Rapeseed is a crop that fits ideally into a long-term rotation. Since barley can't be grown successfully after a wheat crop because of diseases, rapeseed fits in there. The major production area in the past has been in the Swan River area which is in the northern prairies. However, since Tanka rapeseed was introduced, with its large seed and its ease of handling, the crop has been grown farther south. In fact it has been found that it grows well on heavier soils such as the Red River clays where it has been traditionally difficult to find alternative second crops to wheat.

As a crop to grow, it's not too difficult. Durksen says it produces best on summerfallow. However, it can be grown successfully in a crop rotation as long as a good seedbed is prepared and sufficient fertilizer is used.

It has been found in the last couple of years that rapeseed withstands drought just about as well as any crop once the seedlings have become established in the spring.

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Exclusive Healing Substance Proven To Shrink Hemorrhoids And Repair Damaged Tissue.

A renowned research institute has found a unique healing substance with the ability to shrink hemorrhoids painlessly. It relieves itching and discomfort in minutes and speeds up healing of the injured, inflamed tissue.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most important of all—results were so thorough that this improvement was maintained over a period of many

This was accomplished with a new healing substance (Bio-Dyne) which quickly helps heal injured cells and stimulates growth of new tissue.

Now Bio-Dyne is offered in ointment and suppository form called Preparation H. Ask for it at all drug stores—money back guarantee.

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If you are feeling out of sorts half the time, it may be due to a rundown condition. Why not try Dr. Chase Nerve Food? Over the years, its beneficial ingredients have proved helpful to thousands of people just like you. Taken as directed, this timetested remedy helps improve the blood and, thus, helps restore a general feeling of well-being. The tonic benefits of Dr. Chase Nerve Food can help you feel your old self again.

HELPS FIGHT FATIGUE



Dr. Douglas Friend, swine nutritionist at Nappan, is looking for the answer to a basic, but neglected question: do baby pigs need

Water for Baby Pigs?

DO BABY PIGS which are suckling the sow, need drinking water? The benefits of creep feeding have long been apparent, but no one seems to have questioned whether supplementary water would also be beneficial. No one, that is, until Dr. Douglas Friend of the Experimental Farm at Nappan, N.S., began his investigations.

Friend, who is a swine nutritionist, noted that there is a direct relationship between feed and water intake in several species, including the pig; it is an anomaly that, with so many startling advances in nutrition, the question of whether a piglet needs extra water, and if so how much, remained unanswered.

In the first series of tests additional gains of 18 per cent were achieved by the piglets which had access to water. Such results would appear to justify the trouble of providing extra water; the flaw in the experiments is the difficulty in establishing just how much of the difference is in fact due to such things as breeding. On a visit last year to the Unilever Research Laboratory, in Britain, Friend saw a split-litter technique, which he has since adopted.



The "split-litter technique" provides separate miniature pens for three pairs of piglets of the same sex and litter. The water dispenser is at the right of the creep feeder

Sheep Industry at the Crossroads

DESPITE THE PROBLEMS besetting the sheep industry, an air of cautious optimism about its future was struck at the National Sheep Industry Conference staged recently at Iowa State University.

The conference brought together experts to appraise the present situation in the sheep industry, to identify the major problems and outline some adjustments that would be needed if the industry is to have a future.

The conference noted that the sheep industry may be at the crossroads. Serious concern has been expressed over its future. Declining numbers, competition from other meats and fabrics, and low returns have all been cited as reasons for pessimism. However, recent developments in lamb and wool improvement and industry-wide efforts to attack problems gave rise to a degree of optimism.

The advantages that sheep offer were spelled out. (1) Lambs are the only class of livestock that will fatten on natural grasses without grain and still meet U.S. Choice grade. (2) Sheep consume roughages that often cannot be harvested as well in any other way. (3) Sheep can convert feed from land where other feedstuffs cannot be produced. (4) Lambs can be raised in drylot with feed conversions of 3 to 3.8 lb. of feed per lb. of gain.

Livestock

The split-litter technique removes

such variables as the differences in rate of gain between litters. Six pig-

lets of the same sex and litter are divided into three pairs. Between

the hours of 8 a.m. and 5 p.m. the pairs of piglets suckle in rotation;

at night the water is removed from

their creep areas and the piglets are

One pair, which is used for control, has no additional water; one

pair has access to water, while the third pair has water with an added

sugar solution. This last pair will

provide a bonus experiment as it

will establish the additional energy requirements of baby pigs. Very

precise scales are used to determine

the feed and water intake; the

scrupulous care in the management of these experiments even extends to taking into account one spilt feed

pellet. Such a pellet weighs all of 0.15 gram and Dr. Friend, in the search for the answer to an apparently simple and basic question, is

leaving nothing to chance! At the conclusion of these experiments, farmers should expect some prac-

tical advice on the benefits of water,

the amounts required and the effect

upon feed intake and rate of gain.

Water, which after all is often re-

ferred to as the cheapest feed, could

provide a modest boost for the pig

farmer's profits-P.L.

free to suckle the sow.

It was pointed out that the current store of knowledge about sheep is equal to that of the other red meat species, although much of the current research is being done in other countries. There is a long way to go in improving our breeding stock. However heritability for many important traits is known and selection indexes have been developed. Ram testing stations and performance testing programs will help point the way to improvement. A sheep improvement program in Wisconsin is resulting in considerable progress. In the 13 years since it went into effect in 1950, the number of twin lambs produced has increased by 7.5 per cent, and the number of pounds of lamb produced per ewe has increased by 22 lb. A slight de-

(Please turn to page 24)

PLANNING AHEAD

The startling cost of a "few" wild oats

Before you decide to ignore a mild infestation, consider these amazing facts about wild oats:

In a young crop, just four little wild oat plants per square foot don't seem like many. You can't even see them from the road. In fact, unless you make it a point to search for them, you probably won't even know they're there—until it's too late to stop the damage.

Right now, spring may seem a long way off. But it is none too soon to learn the surprising facts about "how few" wild oats it takes to cause costly yield losses

A little simple arithmetic will prove the point:

As you know, there are 43,560 square feet in an acre. Now, suppose you have as few as four wild oats per square foot. That's 174,240 wild oat plants per acre!

Yes, four wild oat plants per square foot are easy to overlook in a young crop—but think of the valuable moisture and plant food that 174,240 wild oat plants will drain away from each

In wheat and barley, field tests show that the four wild oats per square foot can reduce yields by at least 6 bushels an acre. This means 240 bushels lost from each 40 acresa profit leak too big to shrug off. Arithmetic like this explains why more and more farmers every year are taking wild oats more seriously.

They realize that there's seldom such a thing as a "few" wild oats. That's why it is important to walk your fields as soon as your crops begin to emerge. If you see even four wild oats per square foot, the problem is conjusted.

The up-to-date answer is farm-proven Carbyne, the wild oat killer that rescues your crop profits when and where wild oats invade.

Over the past four years, Carbyne has been used successfully on more than 1½ million acres of crops.

Pays 3 to 1 return

One spraying with Carbyne provides the simplest, most economical method of wild oat control known. In fact, you can expect to get back \$3 in extra yields for each \$1 you invest in Carbyne.

With Carbyne in your plans, you also open the gate to the extra yields and bigger profits that early seeding makes possible. You can plant as early as soil and weather conditions permit. Then if wild oats appear, kill them with Carbyne.

Besides putting you in control of the wild oat situation, Carbyne also lowers cultivation costs, cuts down future wild oat infestations and re-duces dockage at the elevator.

Now-approved crops

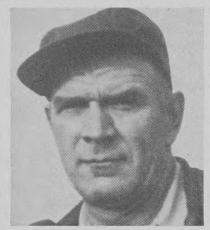
Carbyne is approved and recommended for use on Spring wheat, durum wheat, barley, sugar beets, flax, peas, mustard, rape and sunflower.

A standard 2,4-D type sprayer equipped with recommended nozzles in good working order, is ideal for applying Carbyne. Application, by a qualified Carbyne aerial applicator, is equally setisfactory. equally satisfactory.

Now, get the up-to-date facts about modern wild oat control. Just send the coupon at right for your free, full-color Carbyne folder.



It's easy to see the difference that spraying with Carbyne made in this field of wheat. The light-colored "skips," which were not sprayed, are thick with wild oats. The rest of the field is virtually free of yield-strangling, profit-stealing wild oats.



WHEAT

"In the 350 acres of wheat I treated with Carbyne this year, my wild oat control was about 99%. Without Carbyne, my yield would have been hurt. Where wild oats were the worst, spraying resulted in yield increases up to 20 bushels per acre. I am satisfied that Carbyne paid me a profit."

Arthur Meding Trochu, Alberta



WHEAT AND FLAX

"We have a wild oats problem in the Tisdale district. On our farm we have used Carbyne since 1960 with good results. Carbyne has been a big help on the registered wheat and flax we grow."

Ted J. Mayerle Tisdale, Saskatchewan



WHEAT AND RAPESEED

"We've gotten over 90% wild oat control for the 3 years we've used Carbyne on wheat and rape. It has been a money-maker for us. Stopping wild oats with Carbyne has given us yield increases of 20 bushels of rapeseed per acre and 10 bushels of wheat per acre."

Harold and Arvid Brust Swan River, Manitoba

Experience on over a million acres proves:

CARBYNE KILLS WILD OATS AFTER THEY COME UP



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LIVESTOCK

(Continued from page 22)

crease in fleece weight was expected with the high increase in lamb production.

The sheepmen saw plenty of opportunity to further reduce production costs. They pointed out that synchronization of estrus is nearing the stage of practical use. This would provide better control over time of lambing and permit better use of labor. It would also facilitate artificial insemination. Mechanical feeding is becoming possible through the use of pelleted feeds or low moisture silage.

The sheepmen saw real gains to be made in the future. They said that sheep have potential advantages over beef in that they give higher returns per dollar invested and they permit faster turnover of capital. They also require less capital investment. As well, lamb prices have varied less than beef prices

The conference concluded that one of the greatest sources of encouragement to the industry is the willingness of all segments to unite. The industry-wide programs developed

for consumer-preferred lamb and for improved preparation of wool clip demonstrate that the industry is recognizing its problems and is moving forward to solve them.

But it added that it's time for action by the producer. The producer must provide the stimulus and the continuing force to obtain the needed research and promotion to carry the industry forward. Lambs with more lean and less fat are needed. Small flocks must be replaced with flocks large enough to use specialized procedures. Multiple lambing systems, more efficient management and grazing practices and more intensive production all offer promise. Many diseases can now be controlled by vaccination. The knowledge on which to base some of these improvements is already available.

However, more research is required to develop a more efficient industry. Ways to further reduce costs and increase efficiency must be found. New ways of processing and preparing lamb must be developed.

Sheepmen can scarcely afford to ignore the results of this comprehensive conference on sheep.

Feed Calves in Winter

Rapid gains usually mean cheaper gains

THERE ARE MANY ways you can winter calves after weaning, Dr. R. A. DePage, Hogg-Dawes Laboratories Ltd., told delegates to a recent feed industry conference. Any calf wintering program should be based on what is to happen to the animals later-what kind of feed they are going on, or perhaps what kind of feed is available.

Any wintering plan that merely maintains an animal's weight will only add to the total cost of the calf, and therefore lower profits. Usually, the more gain you get in the winter, the cheaper the cost of winter gain.

The following test results from Washington State College confirm

	Feed	Av. Wt.	Av. Daily Gain	Cost/Ib.
14 4½	lb. corn silage lb. alfalfa hay	500 lb.	0.35 lb.	34¾¢
10 10 1⁄2	lb. corn silage lb. alfalfa hay lb. beet pulp	500 lb.	1.30 lb.	13¢

Although it is true that calves which gain less in winter gain more rapidly on pasture the following summer, they never gain enough to catch up. For example, if one lot of steers gains twice as much during the winter than a second lot, its summer gains aren't limited to half those of the second lot, but will probably be 70 to 90 per cent as much. Therefore, cattle which make the largest winter gains also make the largest total gains for the combined periods, as the following Washington experiment shows:

	Lot 1	Lot 2	Lot 3
Av. winter gain (150 days)	45	150	195
Av. summer gain (150 days)	300	240	225
Av. total gain	345	390	420

You can use a variety of feeds in a wintering program. Alfalfa hay alone will produce about 1.0 lb. of gain per day. A combination of alfalfa hay and corn silage may increase this to 1.1 or 1.2 lb. a day. Two or 3 lb. of barley, or the equivalent, may give a further increase of 0.25 lb. per day.

The University of Minnesota has reported winter gains of 1.0 lb. per day on grass silage (fed free) plus 3 lb. of alfalfa-brome hay and 3 lb. of barley per head per day. At Purdue, free-fed grass silage resulted in gains of 1.0 lb. per day. Legume hay produced 0.85 lb. gain, while oat silage plus 3 lb. of grain gave an average daily gain of 0.95 lb. When 4 lb. of oats per day were fed with grass silage, or 1½ lb. of a protein supplement were fed with corn silage, the average daily gain was 1.40 lb.

Because weaned calves make such economical gains they need only a small amount of concentrate during the winter to increase their rate of gain. Nor will this seriously detract from following pasture gains. At Washington State, calves which gained 1.3 lb. on alfalfa hay and corn silage during the winter went on to gain 2.1 lb. on good grasslegume pasture, while those wintered at 1.0 lb. per day made only the same summer gain. The effect of winter gain or summer gain varies





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widely from year to year and between different lots of cattle.

The importance of feeding a protein supplement to your wintering calves was shown in Iowa tests where, on grass silage only, the gain was 0.58 lb., as compared to 0.95 lb. a day when 1 lb. per day of soybean meal was added to the ration.

"As a general rule," said Dr. DePape, "calves that will be finished on good pasture with grain can be fed liberally during the preceding winter without detracting from grazing-plus-grain gains.

"In this type of feeding program, two points must be kept in mind: (a) never decrease the plane of nutrition, and (b) keep in mind that gains become less efficient as feeders become older.

"The amount of gain desired during the winter depends largely on the way you are going to handle those cattle afterwards," he concluded. "If they are to be fed concentrate on pasture, they should be wintered somewhat better than if they are just to be grazed. If they are to be grazed only to midsummer and then full-fed for the fall market, they should be wintered at a higher level of nutrition than would be advisable if they are to be grazed the whole summer and fall." -C.V.F.

Malathion Safe

MALATHION IS STILL the safest organo-phosphate for use on livestock, according to Dr. W. O. Haufe, head of the Veterinary - Medical Entomology Section at Lethbridge Research Station, who recently concluded a test with malathion on two Shorthorn bulls and one steer.

Prior to the test the animals were put on a standard maintenance ration that would just keep them in healthy

The animals were sprayed at 20 times the recommended level every 3 weeks during the trial. Dr. Haufe reports that cumulative doses of more than 50 times the recommended amount caused a slight depression in the blood cholinesterase level which indicated some degree of poisoning. However, even these high doses did not cause any of the visual signs of toxicity such as sweating, respiratory trouble, stiffness or incoordination. In fact, he says, the behavior of the animals was normal at all times. He determined that the cumulative dosage could have risen 75 to 100 times the recommended level before clinical symptoms would have been noticeable.

The malathion didn't affect the sterility of the bulls, says Dr. Haufe. One of the bulls was used as a sire on a herd of cows prior to the treatment with malathion and the herd dropped a normal calf crop. Semen tests at the conclusion of the test showed the bull to be virile and above average.

According to Dr. Haufe, previous tests with Herefords showed about the same thing; when using malathion on cattle there is a safety factor of about 100 times the recommended dosage. On that basis there is no need for modifying present spraying recommendations.

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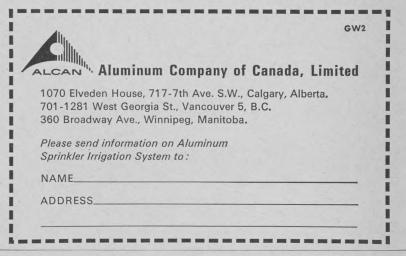
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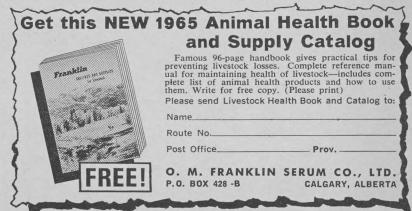
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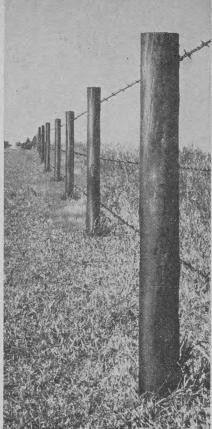
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FINEST VIRGINIA LEAF

LIVESTOCK

Some of the Angus calves in the test at the central test station in Manitoba



+ Guide photo

Prairies Expand Bull Testing

THE FIRST CENTRAL bull testing stations in Manitoba and Saskatchewan are operating this winter. They were built at the request of purebred breeders to provide information on the growth performance of individual calves and sire groups.

The Saskatchewan station is at the University of Saskatchewan. The Saskatchewan Horned Cattle Fund Committee provided the money for its construction and will pay the maintenance costs and herdsman's wages. Contributors will pay for the feed used.

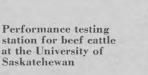
The Saskatchewan station is testing 200 calves this winter, in sire groups of 5 calves each. A condition of entry was 3 years' home testing under the Federal-Provincial ROP

The Manitoba station, located at Douglas, Man., was built by McCabe Grain Co. which is operating it. The Manitoba Performance Testing Association requested the station as a part of a program to encourage beef cattle performance testing in the province. Feed is supplied by McCabe Grain and contributors pay the average cost of feed and handling.

Tests in both provinces will end with a field day to discuss the results. At the Manitoba station, breeders will be asked to put a price on their bulls for sale by private treaty. The bulls will be left on display at the Manitoba station for a week so that prospective buyers can view

Don Mitchell of Douglas, Man., president of the association, has contributed five bulls. I asked Don, who has been home testing for 10 years, why he would go to the extra expense of station testing when he had a well-established home test program. "I want to find out how my five bulls compare with the average. If they do well, that will be fine. If they don't, then I will have to do something about it."

The association hopes that commercial cattlemen in Manitoba will be interested in the field day and sale at the end of the test. "The commercial men will make or break this program," said Don. "If they are not interested in performance tested bulls the breeders will not continue to test at the station." -R.F.





Keep Sows Trim

"OVERFAT SOWS, besides being inefficient, usually farrow smaller litters and have more farrowing problems than thinner sows," says Prof. G. Norrish, swine management specialist with the Department of Animal Husbandry, O.A.C., Guelph Ont.

To avoid this, Prof. Norrish suggests that sows that are kept inside

should be hand fed a balanced ration at the rate of about 5 to 6 lb. daily, depending on the nutritive value of the feed used. They should be put outside in a yard two or three times each week for exercise to prevent stiffness.

If sows are kept outdoors in the winter, then shelters, feeders, and water supply should be separated to force them to walk from one to the other. \lor

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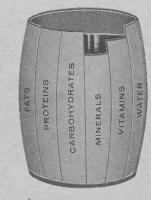
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To understand the "pre-mix" concept of custom-building a livestock or poultry ration, one must take certain facts into consideration first.

One is the necessity of feeding a balanced ration. Livestock and poultry must receive essential minerals,

vitamins, proteins and carbohydrates in the proper proportions or they will do poorly. Feeding an "unbalanced" ration could be compared to pouring water into a rain barrel with a "short" stave. Feed will be utilized up to the "height" of the "short" ingre-



dient in the ration—after that, the nutritional elements of the feed pass through the animal's system without benefit.

Watkins M-V Special is designed to repair the "short" staves in a ration. It provides the essential minerals and A, D & B-Complex vitamins that are in short supply in most common feed ingredients. With the appropriate M-V Special you can build your own high-powered, balanced ration using your own, or locally grown, grain and protein. Result? Livestock and poultry do better, gain faster and produce more profitably because they utilize more of the nutrients in the feed.

Granted, it's entirely possible to raise livestock and poultry without adding M-V Special "pre-mix" to your grain and protein. Many farmers have done just this for many years. Some have fed an unbalanced ration and wondered why their feed consumption was so high! Others have fed an unbalanced ration and wondered why their livestock or poultry were unthrifty and sickly.

Still others, recognizing the fact that a ration must have a proper balance of vitamins, minerals, proteins and carbohydrates to be efficiently utilized, have depended on commercially prepared "complete" feeds or protein supplements. However, there are two distinct advantages to using M-V Special and the Watkins Program.

With the appropriate M-V Special you profit because you are able to use your own, or locally grown grain and protein and cut your feed costs substantially. Also, you know the quality of the ingredients in the feed because you control their selection. A small amount of M-V Special in your feed will effectively provide the essential minerals and A, D & B-Complex vitamins needed to balance that ration. By using a better balanced ration your livestock or poultry will do better on less feed. You save two ways when you use M-V Special!

And remember, the M-V Special "pre-mix" concept is a proven system of nutrition. Although new to Canada, Watkins pre-mixes, and the Watkins recommended feeding program, have been used in the United States for a long time. Thousands of farmers, for many years, have been profiting with Watkins!

If you are interested in making more money from your livestock or poultry operation, call your Watkins Dealer, or write for additional information today! He'll be happy to explain in detail how M-V Special, added to the grain and protein sources found in your own area, will give you a completely balanced economical ration.

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and vitamins to settle well, to build a sturdy calf and to develop a rich supply of milk. So if your stock cows are not getting the minerals and vitamins they need (and chances are good that they are not) you'll improve your calf crop by fortifying their ration with M-V Special for Dairy and Stock Cows.

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Soils and Crops

Meadow Lake Puts ARDA to Work

Through land clearing, seeding and expansion of community pastures, this area is becoming an important beef center

by GARY CARLSON

Saskatchewan Dept. of Agriculture

ARDA IS TALKED ABOUT by politicians and discussed in newspapers, but the payoff must be on



Ag. Rep. Paul Saum (left) and local farmer J. Brown examine the eattle during the fall roundup at the Blue Bell provincial pasture in the Meadow Lake area. Soil unsuitable for cereal crops grows quality grass

the farm. Can it help low income farmers?

Travel to Meadow Lake, located at the end of steel in northwest Saskatchewan, and you'll get a hopeful answer to that question.

The Meadow Lake region was officially organized as a rural development area in the summer of 1963. It gets financial help from both Federal and Provincial Governments. "ARDA has been the answer for our area," says Bert Nagle, chairman of the Rural Development Council.

There are plenty of communities like Meadow Lake in Canada. There is plenty of good farm land and good farms there. But much of the land is Gray Wooded soil which is low in organic matter. There you will find small, low-income farms. Only 40 per cent of the area is

Paul Saum (left) and Fred Durrant of PFRA check drainage channel at Rapid View Conservation and Development area. The ditch will permit flood control on nearly 10,000 acres of hayland



developed farmland. Forests, streams and lakes dot the area.

The region was largely settled during the droughty 30's when families moved north to escape the parched prairie. But many ranchers had arrived before them and had taken up much of the good land. With money scarce and development

costs high these new farms remained small. Today, these farms are too small to give a farmer a reasonable income. Anyone in such a situation faces a big and costly job to bring bushland and meadow lands into production.

That's where ARDA came in. It has made it possible to speed up



the changes taking place; to see that farmers are given assistance in increasing their size of farms.

An area of 755,000 acres comprising four local improvement districts is involved in the Meadow Lake rural development program. Through ARDA these four districts organized a rural development council to take an overall look at the area and to program its development. Each district has a farmer representative and each of the three major urban centers are represented by a businessman. The Departments of Education and Natural Resources of the Provincial Government and the Project Manager of the Metis setlements at Canoe and Green Lakes also provide representatives. The Saskatchewan Department of Agriculture is represented by Paul Saum, local agricultural representative who is council secretary.

With this group looking closely at the area, it didn't take long to diagnose the problem. Council Chairman Bert Nagle says the main farm problem is too much waste land. This land must be developed, he says. "This area is mainly cattle country. If we're going to increase income we have to start increasing our livestock. We must clear, break and drain our land and seed it down to fodder and pasture for community use.

Projects to accomplish this are already proceeding at a rapid pace. Over a dozen fodder and pasture projects are presently being developed. Several flood control projects are under study by the Saskatchewan Department of Agriculture. Since 1963, over 5,000 acres have been cleared-2,000 acres broken. Dams and drainage ditches have been constructed. Numerous resource surveys, both human and physical, have been completed and many are underway.

Community pastures which now carry 2,500 cattle will triple in capacity as the program develops. Another 20,000 acres of land will be seeded to forage to produce fodder for the use of the community. Under the program, the area is rapidly becoming an important beef center.

One major need that has been pinpointed has been the need for credit. The Council would like to see a credit plan developed for clearing and breaking so individual farmers can increase their cultivated acreage. There are over 1,200 farm units in the development area which average nearly a section in size. However they have only about 260 cultivated acres each. Most farms in the area have owned assets which are considerably less than the average for Saskatchewan farms. As a result farmers have little borrowing power. Bert Nagle drives home the point. "Smaller farmers need credit if they are to get full value from our fodder and pasture projects. If they can't get this credit through regular channels, ARDA will have to go into the credit field.

To date, eight projects have been undertaken costing \$350,000 of



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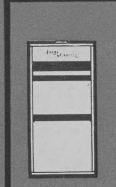
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which the Federal Government contributes \$182,500.

ARDA's work goes beyond the farming community. The rural development council recently organized a committee to study the Indian and Metis part of the community. It wants to be sure that they benefit too from the development of natural resources in the area. It also wants to develop a program which will bring better understanding between the Indian and Metis and the white population.

Vocational training, upgrading courses, more libraries, schools, health and sport facilities for the area are also the concern of the council.

The council is planning to work with Chambers of Commerce and Boards of Trade to promote industrial development and tourism. One of its objectives is to reduce unemployment and familiarize local people with job opportunities both within and outside the community. This will be of help to youth who leave the farm, Paul Saum believes.

More and better recreational facilities are being planned - better roads, power facilities, ski slopes and hunting and fishing lodges.

The future is bright for the Meadow Lake community because its council plans to guide it both socially and economically. Most farm families want to stay and see the area prosper.

Better Wheat Varieties Coming

A SASKATCHEWAN scientist says that wheat varieties with better drought and root rot resistance and which give better yields are "a distinct possibility in the not too distant future."

Dr. E. A. Hurd, cerealist with the research branch, Canada Department of Agriculture, Regina, Sask., says some people have referred to "yield barriers" that have been reached. Their reasoning was that in most crops no gain in yield had been made in the past 30 years. This is true, Dr. Hurd states, adding "in oats, we may have lost a little." explanation is simple. Plant breeders have been "pushed pretty hard" in the "maintenance type" of breeding; that is, in providing new varieties equal to the old ones, but with better resistance to a pest. This has not given them a chance to obtain any improvement in yield.

At Regina, we have modified the accepted breeding procedures to see what we can do about increasing yields," Dr. Hurd says. Some results are "very encouraging," but it is "too early to say we have varieties with increased yield."

On durum wheat, the Regina cerealist declares: "Present varieties are simply not good enough, but we should not be surprised. No new durums have ever been developed in Canada." However, there seems "no reason why durum varieties should not have all the good agronomic characteristics of the bread wheats and better yielding ability as well."

In the wheat breeding program at Regina, "we are trying to produce



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To Register for Reimbursement—The applicant must provide Chipman Chemicals with

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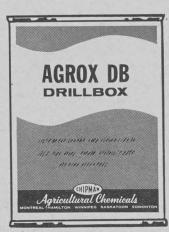






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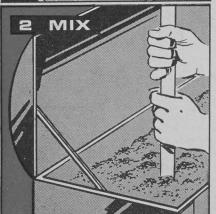


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higher yields without the market restriction of high quality," Dr. Hurd says, because "we think there may be a place for a feed wheat.'

In work on drought resistance, there are many theories, but "little is known at present." One idea, "with some supporting evidence," is that the pattern and extent of root development of plants grown under dry conditions are associated with their yield. Thatcher wheat "appears to resist drought because of its root pattern," the Regina cerealist

More Research Needed

MORE RESEARCH is needed on cereal crops. This view was stated by G. H. Beatty, Watrous, president of the Saskatchewan branch, Canadian Seed Growers' Association.

Addressing the group's annual meeting, he said that at present in Saskatchewan about \$120,000 annually is going into research on new varieties of wheat. He pointed out, however, that Saskatchewan produces approximately 270,000,000 bu. of wheat a year, and he went on to comment, "At one-tenth of a cent per bu. produced there could be made available nearly \$300,000.

"I do not want to leave the impression that I think there is not a great deal of research toward improving our wheat crop. What I would suggest is that perhaps we could urge the proper authorities to make funds available for a cerealist to work with the Crop Science Department of the College of Agricul-

He added that he thinks about \$30,000 a year would be adequate to provide for a cerealist to work full time on this type of project.

Mr. Beatty said he was looking forward to numerous changes that would stabilize the business of seed growing.

He suggested that in the not-toodistant future a large percentage of the seed would be produced on a contract basis "whereby the producer will grow only the amount he knows will be marketable at a reasonable price."

Controlled **Environment** for Bee Research

BEES ARE IMPORTANT to some farmers as a source of honey; they are important to many more farmers for pollination of their crops. Research on such problems as disease has been limited in the past by the seasons and weather changes. Now, with the facilities of a new laboratory at the Central Experimental Farm at Ottawa, Dr. T. A. Gochnauer of the CDA Entomology Research Institute will be able to conduct year round research. In the new laboratory there is complete control over lighting, temperature and humidity.

"This new laboratory," says Gochnauer, "is built for the purpose of studying diseases of bees, the behavior of bees, the odors by which bees detect enemies and detect friends; in other words the things that make bees tick."—P.L. \vee

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Horticulture

Plan Permanent Snow Fences Now

NOW IS THE TIME to see where a permanent snow fence is needed according to P. D. McCalla, Alberta's provincial supervisor of horticulture. He points out that properly located windbreaks will keep roads, driveways and yards free of drifting snow.

According to Mr. McCalla, some Alberta municipalities are already replacing temporary snow fences with permanent windbreaks through the combined efforts of the farmers concerned and the municipality. Farmers usually supply the land and plant the trees and the municipality accepts the responsibility for building up the road, when this is necessary, and for backsloping the shoulders.

He suggests that trees be planted between 100 and 125 feet back from the shoulder to provide an effective snow barrier. It's a mistake, he says, to try to combine farmstead beautification and road protection by planting rows of trees along the edge of the road. If this is done winds lift the snow over the trees and dump it onto the road. Windbreaks should be set well back in the field; however, other trees can

be planted along the edge of the road for beautification so long as they are spaced 20 to 30 feet apart.

A single row hedge is sufficient to prevent drifting snow, says Mr. Mc-Calla. While evergreens make the best windbreak they take 5 or 6 years to reach sufficient height. A caragana hedge planted parallel to the evergreens will overcome this difficulty. When the evergreens are big enough to provide protection, the hedge can be removed. Evergreens should be planted 6 to 8 feet apart.

According to Mr. McCalla, lilac hedges are useful as snow fences in areas where adequate moisture conditions prevail. Caragana is often recommended for dry areas. Both shrub types should be planted 1½ to 2 feet apart.

Lists of trees available from Alberta government nurseries and application forms can be obtained from any district agriculturist's office. V

Early Maturing Tomato on the Way

AN EARLIER, large-fruited field tomato being developed at the CDA research station at Lethbridge, Alta., should be of considerable importance to Canada's tomato-growing industry. So says plant breeder Dr. G. A. Kemp

Dr. Kemp expects the new variety to mature earlier, give higher yields and produce large fruit of improved flavor with crack-resistant skin. He also hopes that the fruit will be firm enough to be harvested by mechanical pickers.

Growers, Dr. Kemp explains, have been hampered for years because fruit maturity is delayed by the failure of the first flowers to set fruit when night temperatures drop below 55 to 65°F. This disadvantage reduced early market profits and, in areas with a short growing season, reduced the total value of the tomato crops.

Raspberry Canes Need Spring Care

START RASPBERRY cultivation in the spring as soon as the land is dry enough to work properly, say horticulturists of the Ontario Department of Agriculture. Organic materials, weeds and commercial fertilizer should be worked into the soil at this

A mulch applied from 4 to 6 inches deep either to the row area or the whole soil surface will conserve soil moisture, reduce or eliminate cultivation and weed control. Such materials as straw, old hay or sawdust are suitable.

Where mulching is practised horticulturists recommend fertilizer

"GILLETT'S

helps take care of our disease worries"

Sanders Poultry Farms Ltd., Cloverdale, B.C. are the distributors of Shaver Starcross chicks for the Fraser Valley.

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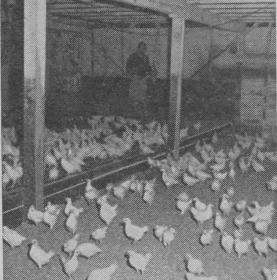


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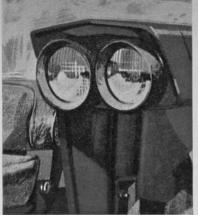
60-page booklet prepared by an eminent Canadian Bacteriologist outlines effective, economical sanitation practices which can save you time and money. To get a copy, write: Standard Brands Ltd., 550 Sherbrooke St. W., Montreal.

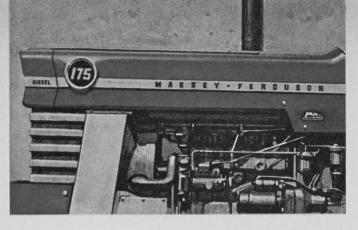




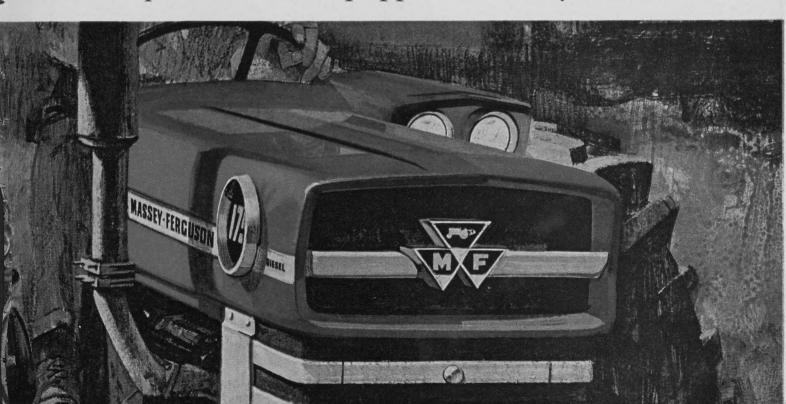




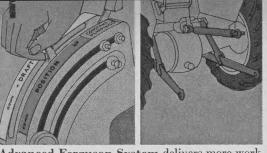




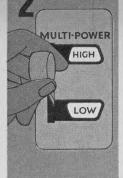
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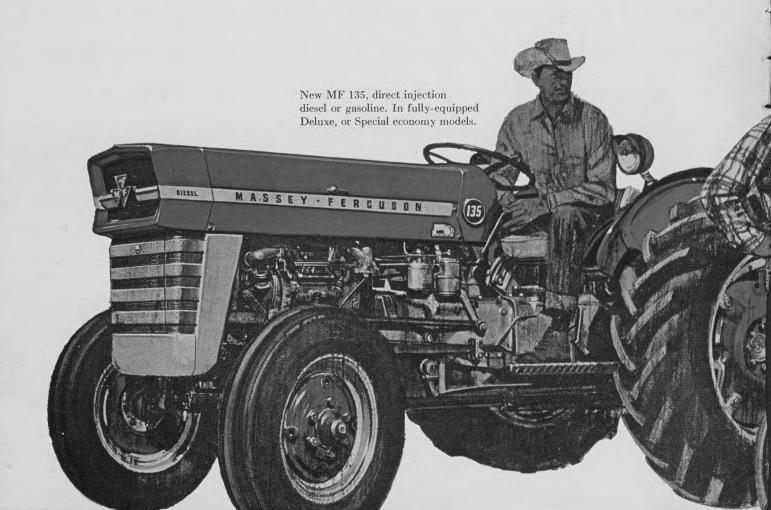
Multi-Power shifts on-the-go at the flip of a switch. Gives you 12 usable forward gear speeds.



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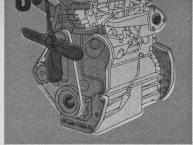




Differential Lock reduces wheel spin, gets you through slick going without delays.



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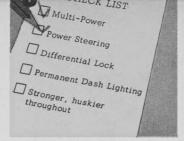
Built stronger and huskier all through, with heavied-up front axles and spindles to "take it" under toughest field conditions. Tie-rods are greased for life.







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New flat top fenders provide better operator protection. Dual headlamps give a better light pattern in field and on highway. Builtin tool box in right fender.

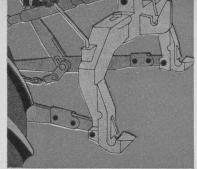
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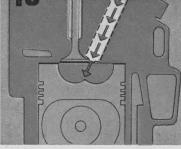




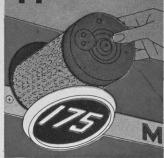
fort Seat has springsuspension and shock absorbers to smooth out bumps and jolts. Adjustable to your height and weight...also fore and aft.



New Rapid Coupler for the 3point hitch lets you attach and detach implements in seconds, right from the driver's seat. To engage implement, just lower coupler, back in, raise, lock, and drive off.



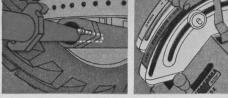
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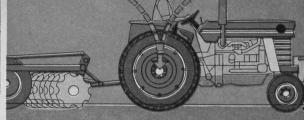








Now, with new Pressure Control and this special coupler on the MF 175 and 180, you get instant traction through weight transfer with big Pull-Type Implements . . . like the Advanced Ferguson System gives with Mounted Tools. How? If wheel slippage starts, you simply increase the hydraulic system pressure-right from the driver's seat and on-the-go.

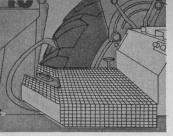


Pressure Control "borrows" the exact weight called for - up to a ton - from the Pull-Type Implement. and the tractor's front end, and automatically transfers it to the drive wheels. Instantly you get the traction to pull right through.

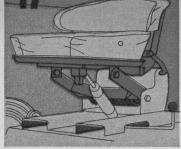
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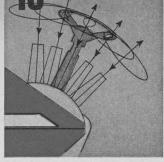




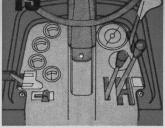
Roomy Platform on the MF 180 is up high for a full view of your work. It is flat and unobstructed—nothing to straddle, nothing in your way. There's plenty of room to drive in comfort, sitting or standing.



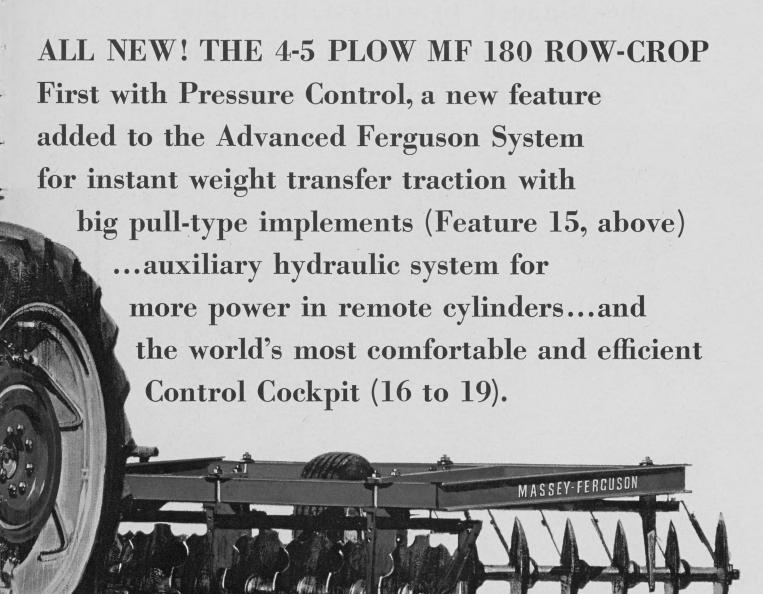
Float-O-Matic Comfort Seat adjusts forward and back, and to your height and weight. Absorbs shocks and vibration.



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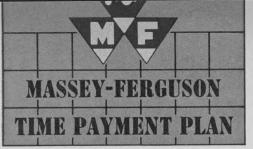


Control Center has everything handy on the dash—Multi-Power, gear shift, throttle, all gauges. It is the "command center" of the MF 180!





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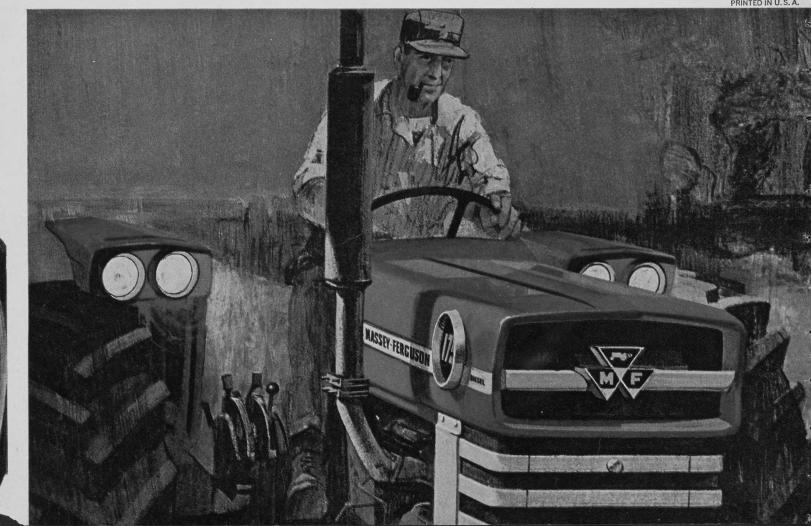


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used at the rate of about threequarters to a pound of 10-10-10 fertilizer for each 10 feet of row. When mulching is not carried on they suggest working in 1 bu. of manure for each 10 to 15 feet of row in spring and fall plus one-half to three-quarters lb. of 10-10-10 fertilizer for each 10 feet of row each spring.

Canes should be pruned each spring; winter-killed and diseased canes removed and burned. Canes should also be thinned out to leave only strong canes, about 6 inches apart.

Raspberry diseases such as anthracnose (gray spots on new canes) and spur blight (purplish areas on the cane around the buds) can be controlled by sprays. Apply the first spray when the buds burst and are one-quarter to one-half inch in length. Use lime sulphur at the rate of 2 cups to 1 gallon of water. Apply the second spray just before the blossoms open; the third immediately after harvest. For the second and third sprays use either Bordeaux 5-5-100 or 76 per cent Ferbam wettable powder. Apply at recommended rates. For further control of these diseases remove old canes and destroy them after harvest.

Weed-Free Strawberries Coming

RESEARCHER J. A. FREEMAN, of Abbotsford, B.C., Small Fruits Substation, has found Tenoran promising as a post-planting herbicide for strawberries. He's learned that applications of up to 5 lb. per acre can be applied immediately after planting without injury to the plants. However, he has also found he got the best results by delaying the application until weeds were reasonably well established. This would normally be 10 to 14 days after planting. Common groundsel and smartweed were effectively controlled by this treatment.

Tests so far show a residual action of at least 2 months depending on soil type and amount of rainfall. By that time plants should be established well enough to allow the use of Simazine. Mr. Freeman plans further tests to determine specific recommendations and the herbicide's effects in spring and fall.

Salt May Damage Evergreens

IF EVERGREENS show symptoms of root rot or suffer from winter drying, saline soil may be the culprit says P. J. Salisbury, of CDA's forest nursery station at Indian Head, Sask. They may not survive on even mildly saline soil because the salts interfere with the absorption of moisture by the roots.

At Indian Head, spruce and pine stands often developed symptoms of root rot when they were transplanted to saline soil. Although many failed to grow, others appeared normal until late summer when lower roots showed signs of decay followed by discoloration and deaths of the tops.

While root rot seemed to follow the weakening of the plant by salinity, the evergreens did manage to survive and grow if they were able to grow new roots.

There's another hazard when transplanted evergreens do become established in saline soil: the toll from winter drying is much more severe than for evergreens on normal soil. However, once established on saline soil they do not seem particularly susceptible to root rot after the first year, Mr. Salisbury says. V

Roses in Alberta

ROSE VARIETIES suitable for Alberta, cultural practices for successful rose growing, hints on winter protection, pruning and pests are discussed in a booklet published by the University of Alberta horticulture department in association with the department of extension. Copies are available free of charge from the Department of Extension, University of Alberta, Edmonton. V

Hardy Strawberries

PROTEM IS the name of a new hardy strawberry variety suitable for Canada's more northerly areas. It is hardier than the one variety now recommended for such areas, according to Dr. R. E. Harris, plant scientist at the Beaverlodge, Alta., research station. Other qualities in its favor are size, shape and firmness.

The new strawberry produces fairly even yields over 12 to 16 days, Dr. Harris says. However, it does give a relatively small yield at each picking and so he sees it much more useful as a home garden variety than as a commercial berry. V

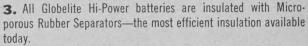
New Turnip Coming

CDA'S CHARLOTTETOWN experimental farm has produced a new Swede turnip variety named York that is resistant to clubroot. The new variety is globular in shape, purple-topped and of consistently good table quality. York seed will be available in quantity by 1966. V



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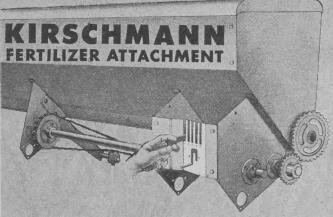
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Management

Study Contracts Well Before Signing

BEFORE FARMERS sign contracts to produce commodities for processing firms, they should first have a thorough knowledge of their own production costs and should read and understand the contract terms.

In cases where dissatisfactions arise over contracts between producers and processors, very often the cause is lack of attention paid by the producer to one or both of these basic requirements. According to J. P. Hudson of the agricultural economics department at the University

of Manitoba, producers who know their business well will rarely sign

can save \$300 or more on equipment you buy!

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a contract containing unfavorable terms. If they have difficulty interpreting the legal jargon of the terms they should seek a lawyer's advice.

A contract is a legal agreement between two parties that is binding to each according to certain specified conditions, Mr. Hudson says. Contracts of many types are becoming commonplace in agriculture. They are especially popular in fields of highly specialized or high volume production.

In every case there should be benefits both to the producer and the processor. In the producer's case they may provide reduced market risks in terms of price or market outlets or both. Some contracts also assure the producer of operating credit and management advice. For the processor, contracts are an assurance of a stable supply of a quality product.

Contracts should be in writing and should be comprehensive, Mr. Hudson says. Before signing a contract a producer should look for these provisions:

- The obligations of the producer. Included in this category are the methods of marketing, the quality of the product to be marketed, the volume or acreage under agreement, date of delivery and, in some cases, the source of production supplies. If the producer assumes only part of the risk the limitations should be spelled out in detail.
- The obligations of the buyer. These may include the price to be paid, including premium prices if any; the amount of credit, and details on repayment of credit; specific details involving acceptance of the product; the position in case of production losses and payment schedules.
- The length of contract. This will vary depending on the commodity under contract. Mr. Hudson suggests that 1-year contracts are generally sufficient, but if production involves a large investment in buildings, then the contract should be valid over a longer period.
- Right of termination. The conditions for terminating the contract should be spelled out. Each party should have the right to terminate on notice. If there is compensation due, the responsibilities to be assumed by either party should be outlined.
- The right of assignment or transferring. Involved here are the rights of the producer to subcontract or simply transfer responsibilities to another producer. Also, if the producer dies, the responsibilities of his heirs should be stated. This is especially important in long-term contracts.
- · Renewal provisions. The farmer should have the same right of renewal as the buyer when the original term expires.
- Arbitration provisions. The method of settlement of disputes should be stated.

The extent to which a farmer wants to limit his responsibilities is something each individual producer must decide, Mr. Hudson says. Contracts limit management authority to some degree but the extent varies. The farmer can become an employee of the contracting firm at one extreme or an independent operator required only to market the product to the firm. Each producer must decide for himself how much risk and independence he can afford or wants to assume.

New Management Assistance

A NEW SOURCE of farm management assistance has opened up for farmers. The Federal Department of Labor has been conducting courses in small business management since September 1963, and while most of the participants come from urban centers, some farmers have partici-

Mixed farmer James Young of Lloydminster, Alta., graduated from a course sponsored by the town's Chamber of Commerce this winter. The Alberta Department of Education also assisted in that course.

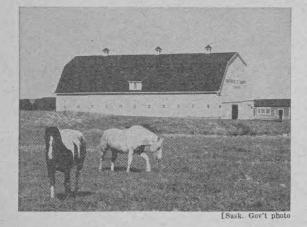
ARDA is also promoting a course in management accounting in some provinces and particularly in Manitoba. For instance, ARDA and the Ashern Chamber of Commerce are sponsoring a course in that community of 500 people.

Topics covered are of interest to both farmers and to the urban business man. They include: (1) What information does an owner-manager need to operate his business profitably? (2) What information can he obtain from his income statement? (3) What information can he obtain from a balance sheet? (4) Where did the cash go? (5) Are all areas of his business activities making a profit? (6) How can the small business owner-manager plan ahead? (7) How can he follow a plan?

Registration fees for participants range from \$10 to \$25.



Buildings



For many years farmers prided themselves on constructing buildings like this one which could be used by both son and grandson. With changing production practices and techniques this "building to last a lifetime" concept is resulting in a lot of problem buildings, they have become a liability rather than a farm asset

Multi-Use Farm Buildings Best

FARMERS WHO PLAN to expand their cattle, swine or poultry enterprises will have to consider providing needed accommodation. This may mean a new building. According to "Kris" Kristjanson, this calls for long-term planning. Kristjanson, who is farmstead improvement representative of the Saskatchewan Family Farm Improvement Branch, says livestock building designs are changing so rapidly to meet the changing demands of today's livestock enterprises that many farmers find 5-year-old buildings obsolete. To guard against this, Kristjanson recommends that every livestock man consider building with multiuse features. He says these can be well built, be reasonably inexpensive and still adaptable to a variety of purposes.

He says they can be ideal for farmers with specialized enterprises. They can be built without fixed partitions or supporting posts inside and they can be enlarged as the enterprise becomes bigger. Also they can be switched over to some other enterprise if a farmer decides to, say, disband his swine herd and go into beef cattle.

Kristjanson says clear span buildings are best for multi-purpose use. They can be built of trussed rafter poles, or of laminated arch rafters. Rigid frame construction using lumber or steel is also suitable. Mr. Kristjanson points out that a clear span open front shed can house beef cattle or sheep or can serve as a loose housing area for dairy cattle. It can also serve for hay storage or as a machinery shed.

Before deciding on the specific kind of construction which is most appropriate for your purposes, Mr. Kristjanson suggests you consider the following:

Pole Frame:

Advantages — Low cost; skilled labor not needed; built quickly; local materials can be used; doors and windows easily changed.

Disadvantages — Some difficulty in fastening joints; adequate pole anchorage not always possible on uneven or rocky ground.

Rigid Frame:

Advantages — Low initial cost; built quickly; maximum vertical clearance inside.

Disadvantages—Foundations need extra strength and accuracy; not practical to have open sides.

Arch Rafter:

Advantages — Continuous wall to roof; more wind resistant; built quickly.

Disadvantages—Foundations need extra strength and accuracy; extra care and knowledge in laminating rafters necessary.

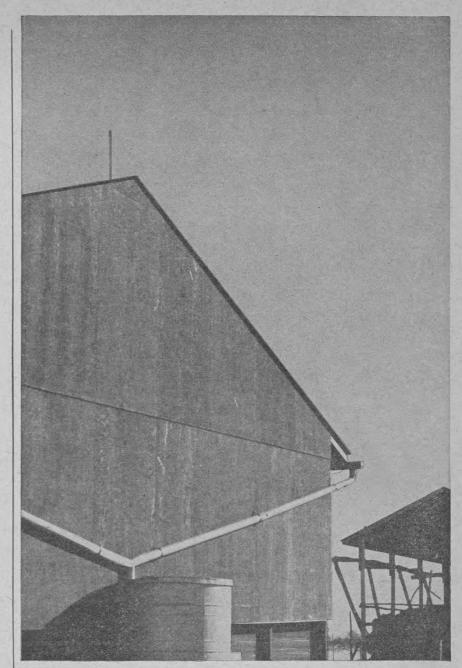
Narrow Farrowing Pens Rated Best

LONG NARROW farrowing pens are becoming popular in Wisconsin because they require only about half as much bedding and half as much cleaning time. The long narrow pen was first used at the University of Wisconsin more than 10 years ago, states C. L. Bart of the agricultural engineering department there. In 1958, his department developed plans for a 12-pen farrowing house of pole frame construction, using the long, narrow pens. Pens were 4½ by 12 ft., with a 2-ft. brooder and creep area for the little pigs at one end.

The Wisconsin researchers found that if sows are fed at the end of the pen opposite the brooder area, they will make a nesting area by the brooder and a manuring area near the feed and watering area. This results in less bedding and cleaning time required.

Air-Conditioned Barns and Piggeries

CONTROL OF environment through air conditioning in barns and piggeries is taking on more importance. At Ohio State University, research results showed that in air-conditioned buildings, there were better weight gains and more milk and egg production. There were also higher conception rates and larger litters. On-the-farm tests showed a return of 9 to 10 per cent on investment. V



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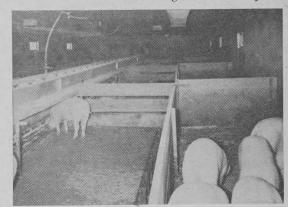
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FARM BUILDINGS

Space-Saving Hog Barn

This hog barn is all pens

The partitions beside the gutter have an openthe gutter have an opening for each pen that allows the hogs to use both sides of the pen. When the gates on the wall are fully opened the hogs are confined to the feeder half of the pen and the wall halves are opened to provide an alley along the wall of the barn



HILTON WALLACE, Goodlands, Man., could not see why he should waste floor space in his new hog barn for alleys and feedways so he built a barn that is all pens. A system of partitions and gates provides temporary alleys to move hogs around. A central feeder serves a row of pens on each side.

Hilton's original plan was for two rows of pens, an alley down both sides and a feedway down the center, wide enough to take a feed cart. "When I figured the space up I found that I had more alley space than pen space," said Hilton. "First I took out the side alleys. Then I decided to install the central feeder. Now all the floor space is available for hogs."

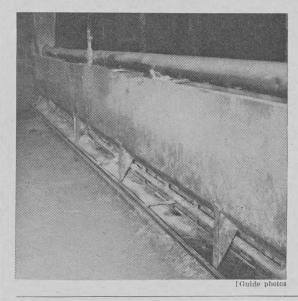
The feeder was designed by a neighbor, Charlie Christensen. Charlie had wanted a feeder that could supply a large number of hogs with feed and water. When he could not find one that did this in the way he wanted he designed his own.

The feeder consists of a long narrow hopper, a system of electrically driven augers, baffles, a water pipe and the feed trough which is open on both sides. An auger along the top fills the hopper. The bottom of the hopper is Vshaped. A row of holes is cut in the point of the V. Horizontal baffles across the top of the V cover these holes and prevent the feed from falling directly through.

Two augers deliver the feed to the trough. The first runs on top of the baffles to prevent the feed bridging. The other runs in the space between the baffles and the sides of the V. The feed that drops between the baffles is moved ahead by this auger until it is over holes in the bottom of the V. From here it drops into the trough. Water is added through small holes in a 2-inch pipe above the trough.

The feeder is manufactured for Charlie Christensen by Sheet Metal Industries of Brandon, Man. He has installed four in his own barn and has a sixth ready to put into use.

Hilton found one problem with his new barn. He had to climb over the partitions to do chores. To solve this he built a gangway along one side of the feeder and walks along this to get to the pens.-R.F.



The feeder delivers both feed and water into the shallow trough below it

Harvest Asparagus Mechanically

ASPARAGUS may soon join the growing number of fruits and vegetables being harvested by mechanical means. An experimental harvester employing the use of a photo-electric unit to "sense" asparagus ready for harvest, has been developed. Spears tall enough to be cut intercept a light beam, actuating a wire knife that sweeps forward and cuts the asparagus spear. After cutting, the spears are grasped by two foam rubber-lined belts and conveyed upward to the rear of the unit.

M. J. Moore, agricultural engineer at Rutgers University in New Jersey, is directing the mechanical harvesting experiments. He says the experimental unit works well on medium to large erect spears, but not on smaller leaning spears.

Dairying



Low-Cost Veal

High energy milk replacers cut veal production costs

ANY DAIRYMAN who has successfully raised herd replacement calves can easily convert his milk production into veal calves which will please the most fastidious buyer. The trouble is that good saleable milk is generally too valuable to feed to vealers. In most cases you will be lucky to break even. However, new advances in calf nutrition and new

types of milk replacers are causing many farmers to take another look at veal production.

Most early attempts to produce veal by feeding milk replacers failed, according to Dr. R. A. DePape, Hogg-Dawes Laboratories Ltd., Toronto, because of faulty replacers. They contained the wrong types of protein. Calves need a good supply of

digestible protein to build muscular tissues. They can't digest plant, meat and fish proteins properly at an early age. But they are able to digest casein and lactalbumin - the proteins found in milk. New replacers are now available containing ingredients the young animal can

Early milk replacers failed to produce choice calves chiefly because of their low energy level. When whole milk is dried it contains about 25 per cent fat. An ideal milk replacer should approximate this, and if properly used, should give the 2.0 to 2.5 lb. of gain per day you get with whole milk. Early milk replacers contained only 1 or 2 per cent of fat. Thus, no matter how much replacer was fed, the energy intake was too low.

Tests have shown that calves fed replacers containing a high fat level not only gain faster but also more efficiently, and will turn out better carcasses, than those fed on low-fat replacers, such as skim milk powder. Although the best fat level for a replacer is not known, it would appear to be no less than 15 per cent. The level of performance can be expected to improve as it is increased to 25 per cent. Replacers containing 25 per cent fat have been fed successfully. The better vealer replacers now contain 15 to 20 per

cent, and give gains equal or superior to those of whole milk.

Dr. DePape gives a sample vealer formula as follows:

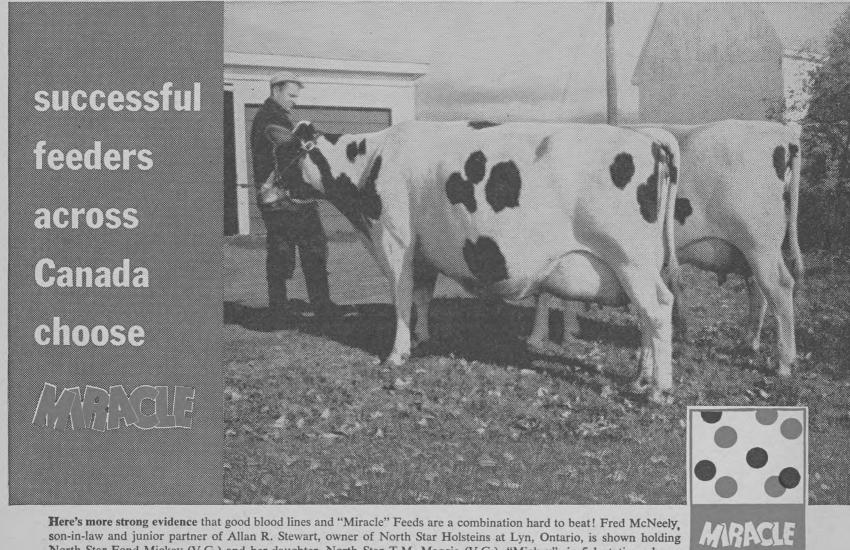
50 per cent spray-dried skim milk 20 per cent dried sweet whey

25 per cent fat (lard or tallow)

5 per cent (salt, vitamins, etc.).

Those who buy ingredients for vealer formulas should recognize that quality differences are very wide since materials can be off-grade for various reasons. It is wiser to pay the price for quality. Palatability is of prime concern because the very young animal is generally more sensitive to palatability differences than an older animal.

Other components of the diet are also critical. Vitamin A and D are essential, and probably the B vitamins too. There is some difference of opinion about the need for mineral supplements in vealer formulas, but in any case, mineral supplements containing iron must be avoided. Iron will cause the meat to darken. Since dry feed invariably contains a lot of iron, you can only get top quality, light carcasses from animals fed solely on milk products. Wisconsin studies show that as little as 5 lb. of hay and 16 lb. of dry calf starter darkened the meat significantly. It may be cheaper to feed grain, but it is a dubious saving if



Here's more strong evidence that good blood lines and "Miracle" Feeds are a combination hard to beat! Fred McNeely. son-in-law and junior partner of Allan R. Stewart, owner of North Star Holsteins at Lyn, Ontario, is shown holding North Star Fond Mickey (V.G.) and her daughter, North Star T.M. Maggie (V.G.). "Mickey", in 5 lactations, has a lifetime total of 72,619 lbs of milk. She was Grand Champion in the Leeds County Black and White Show four times. "Mickey's" daughter, "Maggie" is upholding the family tradition. She has just finished a 305 day lactation for 11,981 lbs, and was Second Prize Aged Cow at the 1964 Ottawa Winter Fair.

FEEDS

DAIRYING

the animals you produce are going to grade lower.

If you bought some vealer calves for \$20 apiece and sold them at 200 lb. live weight your net income would depend on how much milk replacer an animal consumed to reach that weight (feed efficiency), the cost per lb. of the replacer and the price you got for your animals.

Disease is the most serious threat to a veal program. Even if a calf has received its full measure of colostrum, it is susceptible to scours and pneumonia. A prophylactic dose of antibiotic (best recommended by a veterinarian) is essential. An antibiotic in the feed will help too. But no amount of medication can compensate for bad management practices. Your barn must be clean, dry and well ventilated.

For the first few weeks, keep calves separated until the critical disease period is passed. After that try group feeding, although it is much more hazardous than feeding in individual pens. Calves that don't "take off" right away and grow should be sold before they consume too much feed. In any event, you should include a veterinarian in planning your veal program, because you are going to need him sometime. Having his advice ahead of time may be invaluable.

Someday we may develop a formula which has enzymes or predigestants added so that lower cost proteins can be used. Also, it may be possible to modify the enzyme flow in a baby animal so it can digest and use lower cost vegetable proteins as efficiently as it now handles milk proteins. Until this is done, milk proteins are still the best ration components for the very young animal.

			Pounds	of Milk	Replac	er Consu	med		
Vealer Selling		125			150			175	
Price per lb.	26	28	30	26	28	30	26	28	30
Replacer Cost per lb. 18¢	\$9.50 7.00 4.50	\$13.50 11.00	\$17.50 15.00	\$5.00 2.00	\$9.00 6.00	\$13.00 10.00 7.00	\$0.50 -3.00	\$4.50 1.00	\$8.50 5.00 1.50
22¢	4.50	8.50	12.50	-1.00	3.00	7.00		-6.50	

Wisdom and Wonder Drugs

OLIVER WENDELL HOLMES believed that "if the whole materia medica could be sunk to the bottom of the sea, it would be all the better for mankind and all the worse for

Other gems of wisdom have stood the test of time better than this one; some significance, 100 years later. After 20 years of the wonder drug era there is more mastitis than ever; the trouble lies, not with the antibiotics, but with their misuse. Many a cow giving abnormal milk is no longer battling an udder infection. The first shot of antibiotics may have killed the infection, while subsequent udder infusions merely act as irritants. Another sure-fire way to miss with antibiotics is to use them when the actual problem may not be an infection; similar symptoms may be caused by upsets in body chemistry or nutritional deficiencies.

The biggest headache, however, is the development of strains of organisms which have become tolerant to drugs to which they were for-merly susceptible. Low-level dosages kill off the susceptible bacteria; repetitive doses kill off a few more and then a resistant strain begins to

Dr. Reg Doidge, of the Regional Veterinary Laboratory at Ridge-town, Ont., is kept busy fielding the questions farmers ask about resistant strains of bacteria. Says Doidge, "We now have strains of staphyloccus which actually enjoy penicillin and can be grown on it. There is a constant changing of species; the fittest survive and resistant strains evolve. The danger is that a resistant strain may develop on a herd basis.

When sanitation is bad, disease organisms multiply into enormous numbers. These overcome the natural body defenses and cause sickness. Medication is then given and for a short time it combats the organisms and reduces disease. If sanitation has not reduced the number of invading organisms by the time that the effects of the drug wear off, the animal will become reinfected from organisms in the environment. This causes the livestock producer to think that the drug was ineffective. Very few drugs have any effect beyond 96 hours unless repeated doses are given; this explains why disease sometimes flares up again 2 or 3 days after treatment. All medications, even the wonder drugs, have their limitations.

Here is Dr. Doidge's five-point formula for bringing some of the wonder back into the wonder drugs.

- There is no substitute for good animal husbandry.
- Do not give any medication without a definite reason.
- Obtain laboratory and diagnostic advice, whenever this is a practical possibility.
- An underdose is false economy; an overdose may be dangerous. Treat according to recommendations.
- Don't regard the low level feeding of drugs as a substitute for sanitation.-P.L.

however, the misuse of antibiotics and the development of strains of bacteria which are resistant to some antibiotics gives Holmes' words

The Farmer's Plight

by C. M. DOWLING

He wakes in the morning — has no time to stretch; For across the wet fields stubborn cows he must fetch. His pant legs are wet from the knees to the thigh, His pocketbook's empty, though bills are piled high. He goes to the fields, plows them up, seeds them down, He sprays them with stuff that the wife fetched from town. The D. of A. man has confused him a lot, And after the harvest how much has he got? There's no eight-hour day — there's no time and a half,
And to top it all off, he has lost his best calf!
He battles the frost, the tornado, the flood;
He's far from the telephone, but he's close to God. He's a businesswise countryman, a slave when it's hot; He is both Faith and Fatalist; for that seems his lot. He goes to the stable, this passionate man, And doctors a sick cow on the medical plan With antibiotics he's got from the Vet, He is sorely disgusted since they haven't helped yet. He's considerate, he's courteous, he's humble, he's kind, But he roughs it and toughs it, till he's dizzy in mind. He's making no profit, that's plain as can be, When the overall picture's been settled, you'll see.

He listens for markets – the prices are down; So his dreams have been shattered, this man of renown; He's persistent, he's venturous - risks life every day; For the work must go on since there's wages to pay. Though there's food in the freezer - the garden's all green; Still the taxes keep soaring — the slate's never clean: Long ago when his father had walked with the plow, There was more time for leisure than this poor man has now; Oh there's work when it's raining - there's work when it's dry, And the farmer grows older as years pass him by.

But there's a few bright spots to lighten the way, The sunshine, the free air, and the new-mown hay. Most often he's ragged with buttons undone, And his skin looks like leather that's baked in the sun; Now you'll have to accept him — old straw hat and all; For the harvest he'll gather when the work's done this fall. And maybe you're asking how I'd spare the time To ponder on these things, much less make them rhyme; But if it's a mystery, I'll sure make it plain, IT'S IN WALKING THOSE LAZY COWS DOWN THAT LONG LANE!

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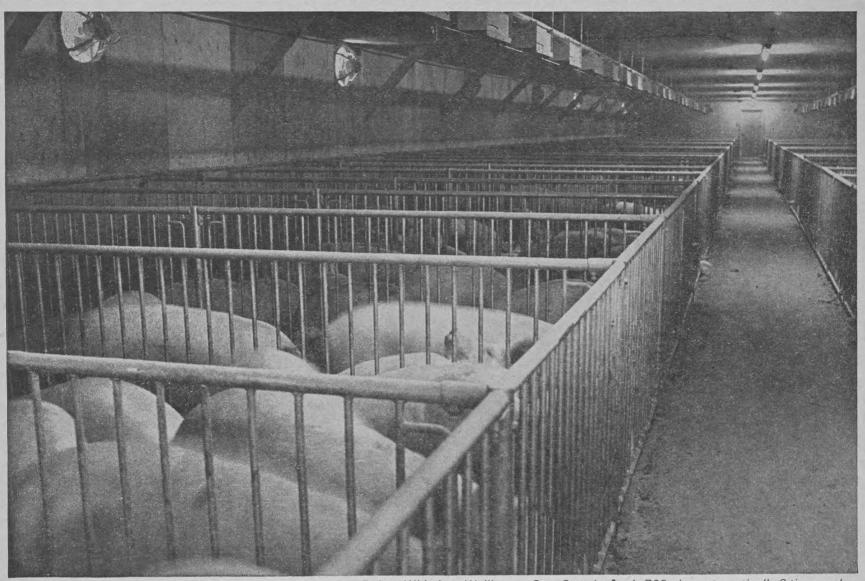
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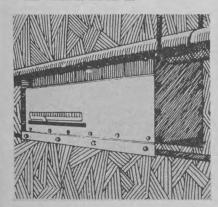
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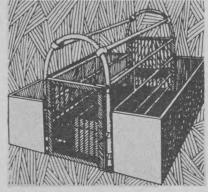




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Sanitary steel pens are made of rigid tubing that is hot galvanized to last a lifetime. Steel rod construction allows more space for hogs, improves ventilation, and makes clean-out and sanitation easy. Gate swings both ways, and is simple to remove for cleaning.



Sturdy farrowing crate can pay for itself in less than a year. It helps you save little pigs during and after farrowing time. Doors at both ends make it easy to get sows in and out. Crate is made of non-corrosive galvanized steel for longer life, and easy cleaning between litters.



Automatic hog waterer eliminates water carrying. Pigs have a constant supply of fresh water 24 hours a day. Both nose pan and float type bowls are available. Heavy-duty bronze valves are designed for many years of trouble-free service.

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Marketing

Statistics Guide Chicken Broiler Industry

PLENTY OF broilers for the summer barbecue season, a sharp cut-back at Christmas when turkey is king, a steady supply most of the year—these things don't just happen. They come about through planning and publicizing. Both are based on statistics built up over the last 12 years and beamed at all segments of Ontario's chicken broiler industry.

How many broilers went to market last week? How many chicks were

hatched and sold to broiler growers for marketing 9 or 10 weeks hence? How many broiler eggs set, eggs or chicks imported or exported? These and other facts are reported each week to the Toronto Branch of the Canada Department of Agriculture. Summaries reach broiler growers and allied industry before the end of the following week.

The object is to match production to seasonal demand — to maintain a

full supply of broilers at retail without glutting the market. Taking average weekly requirements as 100, demand reaches a peak of around 125 in July and drops below 80 in December. Since broilers normally sell fresh rather than frozen, this calls for advance planning and scheduling of supplies.

Key to stability in the broiler industry is the supply of eggs for hatching. Hatcherymen plan to have breeding stock at a maximum about April to supply chicks for the summer broiler trade. Breeding flocks are reduced to a minimum by September in anticipation of declining demand for broilers as heavier poultry comes to market before Christmas.

Individually, growers would like to maintain full production the year round. One could hardly be expected to leave his pens idle so that other growers might make a profit. Collectively, however, growers are pleased to have both the chick suppliers and the buyers of broilers exercise some control over supply. Many growers are under contract, and most, if not all, have some understanding with a processor with respect to marketing date before they acquire a batch of broiler chicks.

When the Canadian dollar was at a premium, efforts to achieve a reasonably stable industry frequently came to naught. The U.S. broiler industry, 20 times larger, poured surplus production or broiler eggs into the Canadian market.

Now that the Canadian dollar is at a discount in terms of U.S. currency, Ontario's broiler industry has an opportunity to use its supply statistics to better advantage.

Broiler growing is a short cycle type of farming which can readily get itself into a state of serious overproduction. The industry has matured enough to know that the chief cause of over-production is a period of under-production and over-stimulation of price. Thus, even when all efforts fail to keep production in line with market requirements, statistics serve to show the broiler industry where it went wrong. It is an interesting and somewhat unique example of voluntary self-help. \vee

Tree-Marking Service

THE ONTARIO DEPARTMENT of Lands and Forests offers a free tree-marking service. This makes possible selective cutting of the woodlot to ensure that trees are harvested when mature. It's the way to get maximum returns.

It has been found best to harvest the large trees in farm woodlots as they reach maturity and allow smaller and younger trees to take their place in a continuous progression. This is the method recommended by zone foresters.

Unfortunately, as J. W. Lockwood, Lake Erie District Forester, points out, "The forester sees only a small portion of the millions of

board feet cut each year. This, in itself, would not be too serious, except that in a large number of cases immature trees are being cut and the farmer is not realizing full return from them.

"Most county by-laws allow trees 14 inches and over on the stump to to be cut and sold commercially (in Middlesex and Lincoln Counties it is 16 inches and over). Log buyers like to approach a farmer and offer him a sum of money for all the trees in his woods over this size. All timber in this area is measured using the Doyle Log Rule, which grossly underestimates the lumber produced from small logs. Most farmers, because they deal with timber only infrequently, do not realize this point. They have a great deal to gain by allowing trees to reach a larger size before cutting."

The foresters are also able to provide information on markets, log grades, prices, scaling and logging techniques. Professional assistance in the woodlot can increase the returns this winter; it can also make the woodlot a brighter economic prospect for future years.—P.L. V



If a new truck or tractor — or both — would lighten your workload and increase your farm's efficiency, your Bank of Montreal manager is a good man to see.

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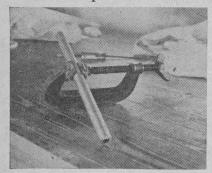
Name

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SMITH-ROLES, Saskatoon

Workshop

Pipe Vise



A C-clamp modified as shown will hold pipe and rod stock firmly. The clamp can be hand held or vise held. Padding the jaws will prevent marking of chrome pipe or other fine stock. Cut a 2-inch pipe nipple in half lengthwise and weld one-half on each jaw of the C-clamp. — H.M., Pa.

Prevent Paint Spilling

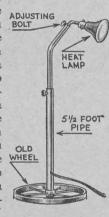


A full can of paint slops over easily, and fills the lid groove with paint. This prevents a tight seal when the lid is replaced. Fill

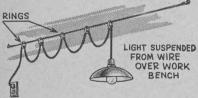
the groove with a rag strip to keep the paint out.—J.J.W., Alta. \vee

Workshop Lamp

This adjustable lamp will provide light where you want it in the workshop. On cold days use a heat lamp to warm your working area. Install a bearing in the upright pipe or in the base if you wish to have the WHEEL lamp free to swing over a large work area.-M.McK., Sask. V



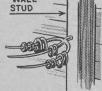
Adjustable Bench Light



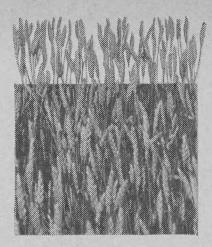
To make one light do for a long bench, string it up like this. Curtain rings on the tight wire will carry loops of the light cord so that the lamp will be free to slide along the wire to any position.—A.W., Alta. V

Nut and Washer Storage

Fit an old pitch fork into a stud over the bench. It will hold such small articles as washers, nuts and spacers. Put up several to provide room for sorting.



several to provide OLD FORK HOLDS room for sorting. WASHERS, NUTS, ETC. For safety, cut the sharp ends off and mount the pitch fork well above eye level.—D.J.J., Sask.



Wild oat infestations as low as 100 plants per sq. yd. cost you 8½ bu. of wheat per acre-plus dockage

But not when you use Avadex*BW Pre-Emergence Wild Oat Killer. That was clearly proved in 1964 field tests conducted by the University of Manitoba—field tests designed to assess the effects of wild oats on crop yields and the advantages of Avadex and Avadex BW wild oat killers

Where infestations reached 200 wild oats per square yard, Avadex BW treatments increased the yield by more than 13 bushels per acre. In lower infestations of 100 wild oats per square yard, Avadex BW treated plots yielded 8½ bushels of wheat more per acre—all clean crop. Continuing proof of the profitability of using Avadex wild oat killers.

The tests were also used to compare Avadex pre-emergence treatments for wild oat control against weeding out wild oats at various stages of development. The higher yields on areas where wild oats were killed below ground with Avadex BW were not unexpected since, from the moment they germinate, wild oats suck up moisture and soil nutrients, depleting fields considerably by the time they appear above ground.

Tests were carried out on land previously summerfallowed, each test being repeated 4 times to ensure accuracy. Various densities of wild oats were established and Pembina wheat seeded in to emerge about the same time as the wild oats. Certain sections were treated with Avadex BW pre-emergence wild oat killer, the others being hand weeded at various stages of wild oat develop-

WHEAT YIELDS IN BUSHELS PER ACRE

WILD OAT DENSITY (Plants per sq. yd.)	0	100	200	300
TIME OF WILD OAT REMOVAL				
AVADEX BW Pre-Emergence Hand weeded in 4-5 leaf stage Hand weeded in 5-6 leaf stage	21.1	19.3 12.0 10.5	19.7 11.1 7.8	15.0 5.5 5.2
CHECK STRIP (no removal)		10.8	6.5	5.9

(Source: University of Manitoba, Plant Science Department, Wpg., Man.) (Note: the cost of a full Avadex BW treatment in wheat is approximately 2½ bushels of wheat per acre.)

Besides giving strong proof of Avadex BW wild oat control effectiveness, these tests also point-up the fact that wild oats do their worst damage to crop yields in

their early stages of growth. Further reasons why Avadex and Avadex BW should be used to kill these weeds below ground, before they steal vital moisture and elements.

As part of an extensive series of field tests comparing the effect on crop yields of various populations of wild oats and dates of seeding, the University of Manitoba, Plant Science Department, turned up some highly interesting as well as highly practical information for every western farmer contending with a wild oats problem.

Results proved that delayed seeding costs the farmer many bushels per acre. As might be expected yields were reduced at each seeding date when wild oat competition was increased from no wild oat plants per square yard, through 50 and 100 plants to 150 plants per square yard. However the reductions in yield were compounded when a late seeding date and a high infestation of wild oats were combined. Yields at the last seeding date (June 15) were virtually wiped out by any amount of wild oats competition

Various densities of wild oats were established and Raja flax seeded in at different dates.

FLAX YIELDS IN BUSHELS PER ACRE

WILD OAT DENSITY (Plants per sq. yd.)	NONE	50	100	150
SEEDING DATES May 29 June 5 June 10 June 15	18.4 16.7 11.6 10.3	10.5 9.8 3.6 1.6	7.4 6.9 2.3 0.8	7.5 5.6 0.9 0.6

Source: University of Manitoba, Plant Science Department, Wpg., Man.) (Note: the cost of a full Avadex treatment in flax is approximately 134 bushels of flax per acre.)

Avadex and Avadex BW eliminate the need for delayed seeding because they kill wild oats below ground as they germinate. You plant when you want—as soon as soil conditions permit. You can plant longer-growing, heavier yielding varieties. You harvest earlier, easier—you harvest more, and that cleaner crop means less dockage.

Ask your farm supply dealer for the factual combined Avadex-Avadex BW manual featuring step-by-step instructions on wild oat control. Or write: Dept. D, Monsanto Canada Limited, Box 147, Winnipeg, Man.



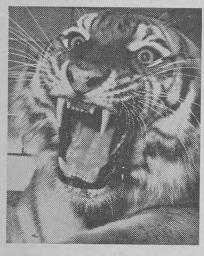


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What's New

3-Wire Baler



This company now offers a self-propelled 3-wire baler. The control platform located directly behind the pickup is said to permit good visibility of the windrow. The Hay-cruiser 1290 is powered by a 65 h.p. water-cooled engine. Capacity is rated over 20 tons per hour. (New Holland). (509) V

Liquid Manure Spreader

The maker claims that this new liquid manure spreader will simplify the job of handling liquid manure. The tank is designed to fill through a 4" hose placed in the pit. A vacuum pump, operated by the tractor PTO lifts the manure to the tank. A simple change-over connection converts from vacuum

to pressure in the tank to expel the liquid. (Beatty Bros.)

(510) V

Hydraulic Transporter



Hydraulic controls are designed to permit this transporter to rest on the ground for easy, on-the-ground loading or unloading. The controls are designed to raise the bed to 22 inches for transport. Lifting is done by two separate 3" x 8" cylinders and the platform is locked in transport position by a special

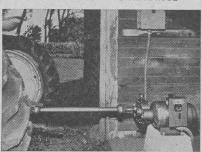
all-steel, angle-braced locking device. (Lundell Mfg. Co., Inc.) (511) V

Moisture Tester



This moisture meter is designed to give a fast, accurate measure of the moisture content of grain or ground feed. It does not require a power supply and can be used in the field. A probe permits testing of sacked grain. (Negetti and Zambra)

PTO Tractor Generator



The manufacturer states that this standby generator will start and operate a 7.5 h.p. single phase motor while carrying a 2,500-watt resistive load. This generator can also provide power for welders, other portable electric tools and floodlights in the field. (Wincharger Corporation) (513) V

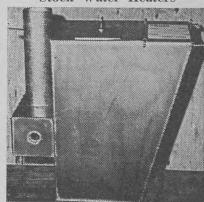
For further information about any item mentioned in "What's New," write to What's New, Country Guide, 1760 Ellice Ave., Winnipeg 21, Man. Please quote the key number that is shown at the end of each item.

Ice Auger



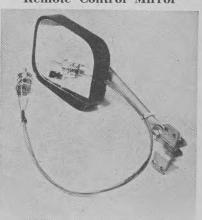
Said to cut an 8-in. hole through 30 in. of ice in seconds, this motorpowered auger is designed for easy carrying and weighs only 16 lb. (United Distributing) (514) V (514)

Stock Water Heaters



Made of heavy material with welded seams, this coal-fired heater is designed to self-feed the fire on one filling of coal every 24 hours. The heat exchanger is designed to circulate the water in the tank, providing even temperature in all parts of the tank. (Thorsby Welders)

Remote Control Mirror



This new rear-view truck mirror is equipped with three stainless steel cables so that it can be adjusted by a small lever on the dash of the truck. It has been designed to fit the standard mirrors now in use so that new supports are not needed. The remote unit has been designed to permit adjustment on the go whenever wind pressure or rough roads jiggle the mirror out of line. (Allegheny Ludlum Steel Corp.) (516)



THIS MORNING, OLD SAM, the zookeeper, felt wretched. The sun shone brilliantly in a hot, blue sky but here, on the graveled path behind the cages, the leaves slapped wetly as he passed. Sam's mouth twitched with affection when he heard the grumbling cough of Monarch, the lion. For a moment, the nagging ache behind his shoulders was forgotten.

Between the man and the great cat there existed a peculiar affinity. Both had come to the zoo in their late prime. Both had lost their mates and had acquired younger ones. Monarch, Sam thought whimsically, had been given no choice in the matter. But, Sam had to admit (although never aloud) that in his own case he should have known better.

As Sam let himself into the lion's quarters, the old beast quietened, settling slowly to the floor of the cage and eyeing the man sleepily with glowing amber slits.

"Well, Monarch. How goes it today?"

For Sam, the habit of carrying on a running conversation with his leonine charge was a pleasurable one. There was no talking back, no interruptions. Monarch was a good listener. But, outside of fathering cubs, Sam could give his big friend little credit for anything else. Daily Monarch disappointed his spectators with a lack of showmanship. When he roared, which was sel-

dom, the great cavern of his mouth revealed only a few stumps yellowed with age and Sam felt a curious sadness when he realized just how long he'd been chopping up the old fellow's meat ration.

Suddenly aware of the overpowering odor of animals penned too long, the old zookeeper's stomach knotted in rebellion. Certainly felt like he'd picked up one of those viruses.

With the thought that a little air might help, he hastened to manipulate the catches on the iron door separating the inner and outer cages. His long, pronged bar screeched against the metal and Monarch swung his still regal head toward the opening. Then, rising slowly, the big cat padded out into the hot sunlight.

"Fresh air's what we need," Sam muttered as he opened the door at the back of the building marked "Zoo Attendants Only."

Outside, on the sunbaked cement, Monarch lay soaking up the comforting heat. He purred a little. To him, the trees were only green blurs seen through a film of age. Then, the wind singing through the cage bars brought with it the familiar smell of warm, waving grasses. In the big cat it stirred a long-lost memory of the veldt where once he had roamed free. Where, at the beginning of the rains, he had led his mate and

Illustrated by JIM WALKER

cubs across to the high, rocky plateau of the kopie.

He moved restlessly. Momentarily his pads lay in a pool of water left over from last night's downpour. Confused, the lion shook his massive head. Where was the pride to which he belonged? Where the kiewets, noisy birds screeching above? The bushveld seemed to stretch endlessly blue before him and with a sudden, fluid motion, Monarch rose to his feet.

Later, when he was questioned, Sam never could figure what exactly had happened. His back had been turned to the inner cage door when a huge body hurtled against it. The impact of metal against metal had sounded like the ricochet of a bullet. Sam had been thrown to the floor with stunning force, waiting with stomach curled for he knew not what. He remembered raising his head, finally, in time to see Monarch padding out the open door. Then Sam sank to the floor and was thoroughly ill.

So Monarch made a last bid for freedom. Sam was convinced the old lion wouldn't get very far. His age was against him and he'd left some blood 'spattered in his wake. The old fellow



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must've gashed himself when he charged the cage door.

IN A NEW SUBURB on Willow Street, Beth Finlay stood with her hands in dishwater bubbles and sniffed with pleasure the warm wind rushing in through the window. A lovely, lovely day, she thought. Sometimes, when it was dull, she felt isolated here. Today, it didn't matter. Smiling, she watched her daughter, Kathie, struggle to carry all her little-girl paraphernalia to the summerhouse at the bottom of the garden. Her ponytail bobbed with 3-year-old importance as she held Pinky, the teddy, in one arm and an indeterminate character called "the mutt" in the other. In one small hand she clutched her newest possession, a nurses' kit. Beth had just replenished it with three new bandaids. If this was to be "hospital day," Beth reasoned that Kathie wouldn't stir from the summerhouse for an hour or more. Funny little kid, she thought fondly. Seemed to prefer her own company to that of other small humans.

"I think Kathie must be a throwback," she once remarked to her husband, Mike. "She has what I call a 'poke bonnet' face."

"She's just a 1965 pixie," he retorted. "Like her mother."

The back door chime rang loudly and it was followed by a peremptory knocking. Annoyed, Beth hurried to dry her hands and thought, "What's all the hurry?"

The blue-uniformed policeman sent her mind scurrying with fright to Dave, her son in school.

"Don't be alarmed, ma'am," he said. "There's no cause for it. At least, not yet."

"Yet?" she queried, weakly.

"A lion has escaped from the zoo," he informed her. "There's good reason to believe it might be in this area."

Beth gasped.

"We have a cordon around six blocks and the streets are patrolled," the officer went on. "If you have any children, you'd better get them indoors. Right away."

Beth was halfway to the summerhouse before the man turned to go. "And keep them indoors," he called after her. "An announcement will be on the radio when the danger is over."

Shaded by the flowering almond bush, the light inside the summerhouse seemed dim. Kathie was bending over Pinky, carefully sticking a bandaid to a shapeless ear. She glanced over her shoulder and whispered, "Pinky is sick, Mummy."

Beth tried to control the urgency she felt. Her voice, when it came, sounded flat. "Mummy wants you to come inside, dear. This minute!"

"But Pinky is sick."

The wind rustled the scrub oak and Beth scooped Kathie into her arms, grabbing Pinky at the same time.

Depositing her daughter on the kitchen floor, she said, breathlessly, "We'll have a tea party—downstairs in the basement room."

Tilted hazel eyes regarded her reproachfully, then brimmed with

"I want my 'mutt'!" Kathie sobbed.
"You didn't bring my 'mutt'!"

The basement windows were very small but Beth's eyes kept straying in their direction. The four windows in sight were locked. But, the fifth one was in the laundry room.

Kathie didn't notice her mother's distraction. Unaccustomed to this mid-morning attention, she was delighting in the real tea in her miniature teapot, the peanut butter cookies on a doll's plate.

Beth got up with the intention of checking on the laundry room window. Upstairs, the telephone rang. Startled, she tensed at the ordinary sound, every nerve taut.

"Back in a minute, honey," she flung over her shoulder as she raced upstairs.

With a sense of relief she recognized Joan Mackie, a morning-coffee friend of long standing. Joan's usual infectious gaiety was missing.

Without any preamble, she asked, "Beth? Have you heard the news?"

"I sure have. It's too fantastic to believe."

"How do you suppose the thing escaped?"

"I haven't any idea. As a matter of fact, I meant to switch on the radio. But I've been trying to keep Kathie entertained."

Joan's voice trembled. "What about the kids coming home from school. They wouldn't let them out, would they?"

"Good heavens! I never thought of that. Oh, surely not!"

"Well," Joan said, "it's only 11 o'clock. Maybe they'll capture it before lunch time."

Hanging the receiver in its cradle, Beth felt better for having talked with someone. The schools would be warned, she was sure, and for a moment she allowed herself to relax at the small telephone table in the

hall. She noticed that the lock on the front door was tightly bolted. Then, deliberately and slowly, Beth walked from window to window, heart pounding. If I saw it, she thought, I'd die of fright. But there was nothing. Nothing on the front lawn, nothing but the new, green grass Mike had seeded just this spring. Nothing at the back. At least, nothing she could see. The scrub oaks screened the back lane, even filled the six empty lots between the Finlay house and others on the street. Not a thing moved out there. Generally, there was some traffic on the road. Today there wasn't a soul in sight. Beth shivered. The whole scene reminded her of the empty main street in a Western, suspense movie.

With a helpless shrug, she realized that there was still a tea party going on downstairs in the basement. There had been no sound from Kathie for quite some time. When one was just

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three, a real tea party could be a pretty absorbing affair.

Pinky, the teddy, was sitting lopsided on a kindergarten chair, his bandaid looking very white against a soiled, plush ear.

"Hey!" Beth called. "Where's my cup of tea?'

There was no answer. Kathie wasn't here! But, she *had* to be! Upstairs! That's where she'd be. Above the noise of her stumbling feet and the hard, beating pulse in her ears, Beth thought she caught the sound of a car motor. But it had no real significance. Because Kathie wasn't upstairs either! There was only one other alternative. Kathie had gone outside for her "mutt"!

MONARCH HAD GONE in a northwesterly direction, skirting the fringes of the city. The smell of man was fainter there. He paused for a moment by the reservoir and a nearsighted employee saw the animal partly obscured by the bushes. He did not recognize it as a lion.

Down by the river, some youngsters playing hooky from school, who were fishing in a secluded spot, were startled by the sudden crackling of the underbrush. When they went to investigate, there was nothing there.

Monarch crossed the railroad tracks. On the other side, what had seemed a grassy plain was only a strange meadow. He was tired and confused, the wound on his flank aching and cinders packed between his huge pads. Ahead, lay a wide, bushy trail and beside it, a small, brown house. But, as he drew near, the taint of man became stronger.

Monarch had seen many small, man-creatures staring at him through the bars of his cage. Always, they were associated with the presence of hard, flying missiles; pebbles paper balls and peanuts. This one in the brown house seemed different. The child regarded him quietly with eyes not unlike those of a small cub; speckled amber like the still, golden bottom of a jungle pool.

Catapulting down the garden walk, Beth flung open the summerhouse door. The tiny figure standing alone with the "mutt" in her arms was the most wonderful thing she had ever seen.

"Kathie!" Beth gasped. "Oh, Kathie baby!"

Clutching her convulsively, she had never been so acutely aware of the child's delicate bone structure.

Above the oaks and halfway down the lane, the top of a van was visible. If Beth had looked in that direction she would have seen it. But, her only immediate concern was to reach the safety of the back door.

Inside, she put Kathie down, straightening her abbreviated skirt. A stain the color of rust caught Beth's attention and she fingered the material.

"What's this, Kathie? Did you hurt

Kathie looked up accusingly. "You loved me too tight," she complained.

They sat by the radio, side by side, and Beth had not realized how long an hour could seem. When the announcement for which she was waiting finally came, she was caught unaware.

"Attention! We interrupt this program to bring you an important news item. The lion which escaped this morning from Glendale Park Zoo, has been captured.'

THAT EVENING, the family listened to the 6 o'clock newscast.

The announcer's voice sounded so impersonal, Beth thought. That morning, he said, there had been a nasty crossing smash-up. And, someone had been held up and robbed in broad daylight on a St. James street corner.

"Well, come on!" she exclaimed. "Let's get on with it!"

"Impatient, aren't we?" Mike remarked.

Beth opened her mouth to retort, then closed it again. Tonight, when the children were in bed she would tell Mike in detail about the whole frightening experience.

The voice on the radio continued. "Locally, there was great excitement this morning when Monarch, the lion, escaped from Glendale Park

Zoo. He eluded the attendants after mauling a deer in one of the enclosures. Park superintendent Hunter withheld the facts as to just how the big cat managed his bid for freedom. Near panic reigned among residents of Winston Heights district when a cordon of police armed with guns surrounded the area and bore down on the trapped animal in the back lane of Willow Street. However, the report is that Monarch gave them little trouble and actually seemed happy to be back behind

"Jeepers!" Dave exclaimed. "Right in our own back lane!"

"But," the voice went on, "there is still a mystery surrounding Monarch's capture. Apparently, when the lion escaped he gashed his flank on the cage door.'

The radio hummed as the announcer paused for effect.

"Somehow - somewhere - the big cat received first aid. When Monarch arrived back at his home in the park, there was a bandaid neatly attached to his hide!"

Beth gripped the arms of her chair, her eyes widening with incredulous speculation.

Kathie sat up within the circle of Mike's arms.

"I saw the yion," she chirped.

Kathie had trouble with her consonants. After all, she was only



VIII HANDA

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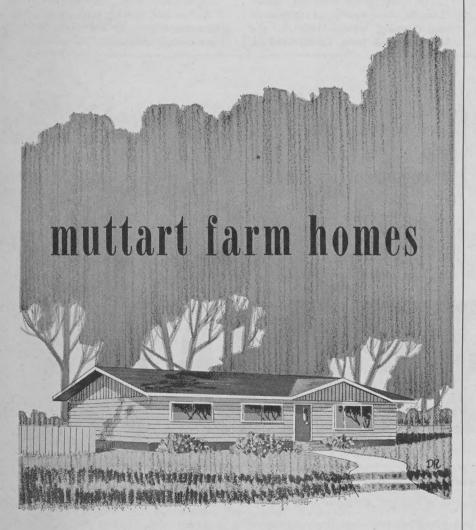
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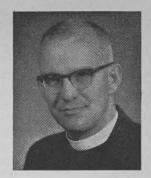
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Let's Think It Over

by THE VERY REV. M. L. GOODMAN



Heritage

My father was the only son of an only son, and that's about all I know of the paternal side of my family. My first name is my father's mother's maiden name. I have met only a few other folks with this particular name, and, when I do, I always wonder if we are distantly connected. One chap I met, who shares this name, told me that there is a motto and a coat of arms to go with it. The motto sounded fine indeed. It was in Latin and means "Not in arms, but in God I trust." However, the effect of this noble sentiment is somewhat lessened when one considers the coat of arms — three cannon balls and a battle axe! (At least I must be grateful for the battle axe. Without it the coat of arms would look like a pawnbroker's sign!)

Whether or not all this has any connection with me, I may never know and it matters little that this is so. What counts about that first name of mine, is that, as far as I am concerned, it is my Christian name. It is the name given to me as a member of God's family. It is the name by which I trust He knows me. As such it connects me, not with the dead and dusty past, but with the everlasting future. As such it reminds me, not of past history, but of present obligations. As such it represents the new life I've been given to live.

Suggested Scripture: Acts IV, verses 5-12.

I'm Frank

Beware those people who say "I always speak my mind." A good part of the time this is their way of taking out a license for gossip or other miserableness. They're setting things up so that they can be unkind or nasty without being judged for their unkindness or nastiness. It's extremely doubtful as to whether there is any virtue in "speaking your mind," unless it is by way of a public confession of your own sins.

You often find, too, that these folks who are so proud of their own frankness are likely to react poorly when they meet a similar frankness in others.

Suggested Scripture: Jeremiah IX, verses 1-9; James I, verses 19-27.

The Sad Face of Jesus

Each of us in his own way is a seeker. We have our problems and doubts and we are looking for answers. Some of us are deliberately looking for piecemeal answers, because we suspect that Jesus himself is too big an answer for us. After all, when we face THE TRUTH there will be nothing we can hide. There will be no hope of deception and no chance to ignore the things we'll have to do. So, instead, we look for part answers, and so we live haphazard, lopsided lives, with all kinds of strange frustrations, irregularities and inconsistencies.

Facing the truth inevitably awaits each one of us. Some have already faced it and are doing their best to live by it; but so many of us are managing to keep Him just on the periphery of our vision. We don't want Him to go away altogether and yet we don't want to face Him right now.

His knowledge of us will be hard to face. We would be more comfortable if we could go on thinking of ourselves as our friends think of us, since they don't really know us. While we're trying not to look, yet not wanting Him to go away, He remains, patiently waiting, THE TRUTH.

The famous first war padre — Studdert-Kennedy — wrote a poem of a cockney soldier who dreamed of his own death. Part of the experience was the review of his life in its true proportions. The poem concludes:

There ain't no throne, and there ain't no books, It's 'Im you've got to see,

It's 'Im, just 'Im, that is the Judge Of blokes like you and me.

And, boys, I'd sooner frizzle up, I' the flames of a burnin' 'ell,

Than stand and look into 'Is face, And 'ear 'Is voice say — "Well?" *

Suggested Scripture: St. Mark XIV, 66-end; St. John XIV, 1-7.

*G. A. Studdert-Kennedy's "Well?"



Home and Family

by GWEN LESLIE

Family Room Foremost



An elevator pulley-rail system to be installed on the framework shown above will allow Donald to come and go by himself in his wheel chair

China storage space beneath the book shelves is handy to dining suite out of sight at the right

AS IN MOST FARM HOMES, people always used the back door to the Hubert Owens house near Dover Center, Ont. There was a front door, too, of course, from the porch. But last year the Owens family replaced the porch with an addition which houses a spacious family room, bedroom and bathroom. Since it was finished last March, Mrs. Owens told me, everyone has come in through the front door. And little wonder - it is inviting! An extension of the carport roof shelters the new entrance. A planter to one side of the door sprouts beginning greenery. The door itself is centered between two glass panels inviting daylight in with guests.

Inside, broad steps lead up to the living level and a family-size closet for outdoor clothing. To the left of the top landing there's a doorway into the big farm kitchen of the original farm house; to the right, the spacious new family room.

The addition is the result of careful planning. Four years ago Hubert and Bessie Owens installed a new oil furnace. At that time they allowed for the extra heating needs of a proposed addition. When they were ready to build, they worked closely with the architect they engaged.

Mrs. Owens is particularly pleased with the easy-care features they incorporated. With a family of five ranging in age from 14 years to 3, and seven rooms to care for in the original home, her time is at a premium. She's happily satisfied with the walls of brick, one in the entrance stairwell and one in the family room, and with the random-groove butternut-finish birch paneling used elsewhere. The beige vinyl asbestos tile chosen for the floor buffs up readily. There's a floor area of 20 feet by 24 feet in the family

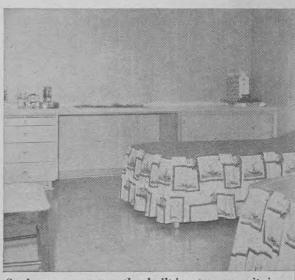
room alone! The furniture there is mostly upholstered in wipe-clean vinyl too. "It's light enough for me to move for cleaning, and the vinyl coverings wipe off easily and quickly," she explained. Family room furnishings include a white chesterfield and matching chair with brown and white striped tweed cushions, a companion set in turquoise, and a gold chair and footstool for glowing color accent. The dining suite chairs do double duty when extra seating is required, and are easily borrowed from the dining area on the divider-storage wall between stairwell and family room. Beside the clothes closet mentioned earlier, which opens into the landing area, this wall provides for book shelves above a china storage section facing into the family room. A cut-out section in this same divider wall lets daylight into the family room from the entrance. The light tone of the acoustic-tiled ceiling further brightens this pleasant room.

The Owens family had a special need for the multi-purpose family room addition to their home. The second eldest of the children, 12-year-old Donald, has been confined to a wheelchair since an accident with a gun when he was 9. He shares the new bedroom with brother Dennis. The bathroom off it was geared to Donald's convenience; sink and vanity height permit him to wheel his chair underneath. The floor level of the addition itself was raised flush with the first floor of the original house so he can wheel freely into the kitchen for family meals and the cleaning up chores he shares with the other children.

Family room foremost, the addition made to the Owens home is a source of satisfaction to the whole family.



Brick pillars behind Mrs. Owens and Jill accent the window wall in 24 ft. by 20 ft. family room



Study space centers the built-in storage unit in Dennis and Donald's 12 ft. by 15 ft. bedroom

In the Kitchen

[Guide photos

Ceiling-high kitchen cupboards rate highly with Diana Lanier. Research indicates that this type is practical because it puts foodstuffs at point-of-use



Dorothy Cyr finds her recessed flour bin most efficient. When bin lid is closed it forms part of counter top





Back entry in Liz and Lou Lanier home stores the children's outerwear



Elsie May Bulger of Bassano, Alta., shows pull-out storage area for pots and pans in her kitchen. It is part of the island area that contains her stove

Bedroom



RIGHT: Betty's bedroom cupboard (her husband has one too). It has vertical sections, shelves, drawers and racks

LEFT: Betty Meyers planned bedroom closet storage in her farm home for maximum use. This is the closet in one of the girls' rooms



Well-Planned Storage

HOW OFTEN DO YOU HAVE six extra people for dinner, sandwiches to make for an unplanned picnic, or lunches to make for the men in the field? Maybe it's an unscheduled trip to town for parts or the telephone won't stop ringing. Perhaps your preschoolers are more demanding than usual. Whatever the task, it can devour a lot of time and energy. Another thing: most of these tasks involve handling household articles—whether it's getting plates from a cupboard or picking up toys.

As Country Guide home editors travel across Canada meeting and talking with farm wives they frequently see firsthand some extremely practical ideas for saving time and energy. Nowhere is this more evident than in the well-planned storage areas we've seen. Some of them are shown in the accompanying photographs.

There are, of course, a few basic rules for efficient storage. For example, it's wise to:

- Store household articles at the first point of use.
- Store most-used items on shelves most easily reached and put seldomused equipment on top and bottom shelves.
- Wherever possible, store items one deep.
- Use step shelves, slanting shelves and vertical racks whenever possible.

It's also important to remember that no two families have identical needs. However, if you are planning to build a new home, contract for a manufactured model or perhaps remodel an old one, there's a lot of valuable information for you in a recent bulletin published by the University of Illinois Agricultural Experiment Station. It's called "Space Design for Household Storage." It was written by Helen E. McCullough and costs \$1.25.

Let's consider food storage first.

Helen McCullough explains that the average family of four keeps about 175 units of nonrefrigerated (packaged, canned or bottled) foods on hand. Yet you can get all these supplies into one storage unit 36 inches wide, 12 inches deep and 84 inches high. The upper part of this particular unit has adjustable shelves 8 inches deep; and it also has 1½ to 3-inch deep adjustable shelves on the doors.

Another unit, 4 inches deep, designed as the result of her study, stores most packaged foods. Large packages are stored broadside. Another unit, designed for canned goods, needs to be only 4½ inches deep for the recommended one-deep storage, 8 to 9 inches if you prefer to store cans and bottles two deep.

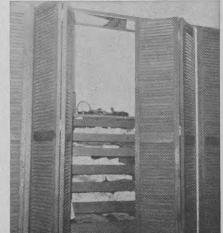
WHAT ABOUT CLOTHING STORAGE for a family of four? Such a family needs places for shirts, socks, ties, underwear, lingerie, hats, purses, gloves. In Canada's climate we also need to think of mothproof storage areas for winter clothing and a place to keep summer things out of the way in winter.

We need storage for boots, a place for visitors' coats and hats. The latter are best put in a closet near the front door; on the other hand, children's parkas, snowboots and rubbers are better stored just inside whatever door they normally use when coming home from school or play. You can see this idea at work in Liz and Lou Lanier's home.

As the result of her study of farm home storage needs, Helen McCullough estimates that each person needs 48 to 84 inches of rod space, depending on the size of wardrobe. Heavy coats take 4 inches; women's garments 2 inches; men's garments 2½ inches. For adult clothing you need rods 63 inches from the floor; the rods in the children's (6)

Bedroom closets in the Fred Bulger home (below, left) have a lazy-susan-like design. Center section turns as desired. Remainder of wall provides drawer storage. Pictured (below, right) is a section of the bedroom storage area in the Lou Lanier home with its louvered folding doors and its pull-out trays





laves Time and Energy

by ELVA FLETCHER

Home Editor

to 12 years) closets should be 45 inches. The closet itself should be at least 24 inches deep; closet shelves 12 inches deep.

Why not install folding or sliding doors in closets? They make it easier to reach the things stored inside. Have you considered racks for shoes, purses, ties and so on? Drawers are useful too, as can be seen in the photos taken in Betty and Ivan Meyers' farm home near Coaldale, Alta. Or you might try built-in tray-type drawers. Liz Lanier enjoys this type of storage in her home.

For garments that need to be folded, try shallow drawers (not more than 5 inches deep). Deep drawers will, of course, let you stack duplicate items; or you can install a sliding half drawer to give you better use of the space. Another way to make good use of a deep drawer is to partition it with shallow boxes.

You need easily accessible storage areas for cleaning equipment and supplies. It takes a lot of time and energy to handle and move them but you can save both by storing them at point-of-use.

In most 2-storey or large rambling homes it's a good idea to keep equipment and supplies in places that encourage their use. This way you don't need to haul them from floor to floor, or from area to area. For example, a carpet sweeper or light-weight vacuum cleaner stored near the dining table or front door makes it easy to brush up crumbs or gritty dirt before vacuuming day arrives.

Perhaps these suggestions from Helen McCullough will be helpful:

Keep cleaning supplies that require water for use at or near the kitchen sink, and in or near each bathroom.

If duplication of supplies is impossible, carry them from place to place in a basket. But do allow a convenient space for the basket.

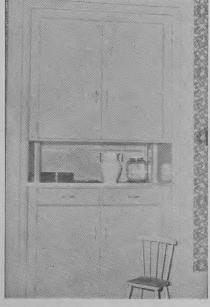
For cleaning equipment (vacuum cleaner, polisher, brooms, dustpan and such items) there's much to be said for a central cleaning closet. Helen McCullough recommends that such closets be 84 inches tall, 16 to 24 inches deep and as wide as necessary (24 inches up to even 72 inches if space is available). Such a closet will accommodate most household equipment. However, her research indicates the 16-inch depth is better because it's easier to see and remove the things inside it.

THEN THERE IS TOY STORAGE. When children are very young or the house very small, they're most likely to make their playroom wherever mother is working. When this happens it's a good idea to provide toy storage in the rooms where they play. It could be a covered box or chest, a storage-type hassock, or a shelf in a cupboard. Or you might use a deep basket for temporary storage. It's easy

(Please turn to page 58)

Creating New Storage

Ontario homemakers make new use of old space. Ruth Bradley (r.) used lower part of back stairs; Mrs. Irvin Fromm converted a doorway for china and linen (l.)







Eva Roach started to grow orchids as a hobby. Now she has blooms to sell

Grow Your Own Orchids

by EDITH MOSHER

WHAT DOES a woman do when her children have grown and left her with a big empty house and time on her hands? Sit around and pity herself? For Eva Roach, a housewife in Windsor, N.S., that wasn't the answer. Instead, she embarked on a project that not only keeps her both busy and interested, but has started to pay off in dollars and cents.

Eva grows orchids. Eva's neighbors were not surprised to find these exotic plants rubbing shoulders with geraniums and begonias on Eva's sunny windowsills. One of her friends says "Eva has always been a great hand for doing things."

The whole Roach family are "great hands for doing things." Eva's husband, Gerald, now retired from the retail clothing business, has a green thumb. He gardens all summer, and has a large collection of wildlife photos to his credit. A son, Gerald junior, paints. Daughter Lois is almost as versatile as her mother; their hobbies during recent years have ranged from breeding, raising and selling canaries and budgies to making hand-hooked rugs using abstract designs adapted from Gerald junior's paintings.

"I'd wanted to raise orchids for years," Eva said. "I read and studied everything I could find on orchid raising. When circumstances permitted, I invested in a few plants."

Eva's first plants came from a nursery in Daytona Beach, Fla., and, she says ruefully, "They weren't much to look at—just one or two leaves on the smaller plants and large flat leaves on the plants of blooming size."

She learned—the hard way—that orchids, though actually not as tender as they are supposed to be, need a humid atmosphere. Yet they don't like too much water too often. She just about drowned those first plants. Although her mistake was a costly one this didn't discourage her.

Her second order was shipped bare root, in plastic bags, and arrived in excellent condition. "But to keep them that way," she told me, "requires care and patience—maybe more patience than most people possess."

It takes a long time, too, to grow an orchid to the blooming stage. "How long?" I asked.

"That," Eva replied, "depends on the kind of orchid. Cattleyas may take as long as 10 to 12 years, but some bloom in 7 years. It's interesting to watch the wee ones grow, but I doubt if I'd have the patience if I didn't have large ones in bloom or in sheath most of the time."

EVA HAS 3 cymbidiums now, each a different color. She also has over 50 cattleyas ranging all the way from blooming stage to tiny ones that won't flower for several years yet. She grows them in pots, in bark or fern root, which she obtains from the nursery where she buys the plants. Orchids, I learned, are air plants and require lots of air and good drainage. They also have shallow root habits and often present a rather grotesque appearance because the roots tend to grow over the top of the bark and sometimes even down the outsides of the pots.

"What about light conditions?"
"They need a lot of light and sun," she told me, "but not the bright noonday sun. You have to shade them or they'll burn."

Eva's plants reflect the good care she gives them, for at the height of the blooming season (usually from January to June) they often have as many as 30 blooms on 1 stalk. The flowers bloom for as long as 2 months on the plant and for a period of about 6 weeks after they are cut and shipped.

She accepts orders for her orchids and ships them with stems submerged in a little bottle of water. At first she felt she would be satisfied if she could sell sufficient blooms to pay for her initial investment. But now that more orders are arriving all the time, she realizes that orchid growing is more than an interesting and absorbing occupation; it's a business with money-making possibilities for any housewife who has the time, ambition and patience to really work at it.

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In clinical tests with this special medicine, woman after woman got relief from those hot flashes, weakness, nervousness that can make you feel so tense and tired!

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M-184. Another in the series designed for picture or chair seat features rosebuds and leaves. Petit point kits in 2-thread (3½" sq.) and 3-thread (4" sq.) cost \$2.50. Wool kit with 18" sq. white canvas \$3.50. For chair seat, wool kit with 26" sq. ecru canvas \$5. No background wool is supplied. Chart ordered without materials costs 35¢.

For handicraft patterns pictured above please address your order to Country Guide Needlework Dept., 1760 Ellice Ave., Winnipeg 21, Man.

WELL-PLANNED STORAGE SAVES TIME AND ENERGY

(Continued from page 57)

to move such a basket to their room at the end of the day.

An open-shelf storage unit in the children's room (48 by 48 by 12 inches) will take most indoor playthings. The McCullough report also suggests tip-out bins at the bottom of each unit for that fascinating collection of bits and pieces that are so important to children. And you might like to consider a unit with some drawer storage for crayons, pencils and coloring books. Part of this unit could provide a counter top that would double as a desk. At night, large toys such as trucks and fire engines, which are too large for shelf storage, can be wheeled into the vacant knee space.

There is still much to be said for a place for everything (and everything in its place) insofar as time and energy are concerned. You'll also save some of both if you have wellplanned storage for such things as books (10 inches deep for most books, 12 inches deep for over-sized ones), magazines, records, the record player, card tables and chairs.

The same storage-at-point-of-use principle is equally useful when you apply it to bath, bed and table linens. This is particularly true where there are bedrooms and bathrooms both upstairs and down. Helen McCullough suggests folding doors or sliding doors to give easier access into extra-large linen closets; and sliding, shallow drawers for wrinklefree table linens.

Well-designed storage areas are attractive in themselves. More important, they're time and energy savers. And, in these days when there are so many demands on both, where better to start a campaign to conserve them than by planning storage areas to meet your own individual family needs?

Moods

In early spring when all the hills Are rolling mounds of green, With planted fields and meadows neat

Sandwiched in between, A little stream sings merrily And rushes by our door, As if it had an urgent need To leave the valley's floor.

In wintertime when all the hills Are covered deep with snow, And fields are taking needed rest And hearths are all aglow, The little stream just murmurs by As if it hates to roam And seems inclined to never leave-But make our farm its home!

-Geo. L. EHRMAN.

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No. 3494. This semi-fitted, sleeveless dress and collarless cutaway box jacket with bracelet length gathered sleeves was designed by Jean Muir. Order from Junior sizes 9, 11, 13; Misses' 10, 12, 14, 16, 18. 85c.



No. 3471. Fashion wise and figure flattering describes a dress and coat ensemble which features Princess seaming in both semi-fitted sleeveless dress and classic coat with pert away-from-the-neck coat collar. Misses' sizes 10, 12, 14, and 16. Price 85c.

See Butterick pattern order coupon on page 58



No. 3534. From fashion designer Deanna Littell comes a youthfully styled dress and coat costume subtly shaped by artful seaming, with optional braid trim. Junior sizes 9, 11, 13; Misses' 10, 12, 14, 16. Price 85c.

Spring Fashion Forecast: A Feminine Season

STYLING

Feminine and soft is the look for spring—from neckline to hemline the silhouette is focused on figure flattery. To think spring is to think pretty, for that's the one word that best describes the newest in fashion for the season ahead.

Look for figure-conscious styling in clothes that move closer to the outline of the body. Waistlines are in place, identified by the belt which in recent years has wandered both higher and lower than the natural waistline level. Clothing for special occasions reveals shoulders bared for beauty.

The coat and dress costume is a fashion highlight again this spring — the coat usually skinny, neat and tailored with soft upward shaping; the companion dress reflecting the coat shaping in fluid Princess lines.

The suit, a perennial springtime favorite, reemphasizes the costume look. Dress and jacket combinations masquerade as suits; three-piece suits link jacket, blouse and skirt into a complete costume and dress up or down in two-piece combinations of blouse and skirt, skirt and jacket.

Many new necklines are ruffled and softened for face-framing flattery, designed to accent the femininity of a graceful throat line. Sleeves and skirts are wider, often bell-shaped, adding more emphasis to the pretty and soft silhouette.

From daytime dressing to enchanted evenings, fashion moves with the times in swinging, pleated, flounced and fuller skirts. Smooth, supple and often sheer fabrics take to the newer, softer shapes with perfect precision.

Knees are in — in fashion and in sight. Hemlines have risen to new heights. But the discreet lady of fashion, spring 1965, will remember that even though skirts are being shown shorter than we have seen them for many seasons, the happiest hemline height is the one that's most becoming.

COLORS

The fashion-favored colors for spring and summer have three distinctive qualities: they're soft, fresh and feminine. A subtle spring range of delicate, fragile, pale and pastel tones shades into ladylike summer brights. No single color dominates the color scene; instead, the whole delightful group combines in multicolor effects ranging from gracefully feminine water-color tones to luminous, vivid mixtures.

The names given to the color groupings foretell a pretty season. Off-white, ecru and parchment bear a slightly yellow cast. Light camel tones deepen to earthier shades of brown that combine strikingly with prim white and pale pastels. Soft and subtle celery and clay tones are tinged with green, and these introduce grays that emphasize precious platinum and pearl tones with a definite blue cast. Silver and pewter grays are used with mauvy water-color pinks.

Porcelain blues, exquisite in their variety from palest pale to clear, frank shades range through clear and pretty ice into purple-tinged Copenhagen and French blue. Navy reclaims spring '65 as its own very special season, appearing alone and in stunning combination with red in stripes, polka dots, checks and prints.

But the spring of our surroundings is green, and the world of fashion reminds us with a truly memorable selection. Choose from blue-shadowed mosaic tones; yellowed chartreuse, lemonade, lime, cricket and grass hues. In turn, the pale lemon yellows are tinged with green before mellowing into a pure, glowing sun color.

Fresco corals shade from yellow-tinged apricot through a clearer orange group, then subtly swing into true coral tones of shrimp, shell, salmon, and flamingo

Alone, or in enchanting combination, spring colors are a pure delight.

FABRICS

Refined and feminine fabrics meet the challenge of a pretty fashion season. Plainer, smoother fabrics are never really plain, nor completely smooth. All have a subtle surface interest achieved through special yarns or weaves. The sculptured look has been subdued in finer tweeds; loops and curls are smaller and flatter; and bulky yarns have been pressed down. The crochet look is an exciting new element in wool and in blends.

Spring fashions favor all twills from whipcord to surah. Crepes offer many weights, but the accent is on light ones and sheers. Jerseys and knits are more popular with every passing season. The perennially classic linen and look-like-linen fabrics attract new attention with needlepoint and diagonal effects, open-weave surfaces, cool lacy stripes, and allover cotton-stitched embroideries. Handsome black and white, and navy and white prints stand out in patterned linens.

Pretty spring colors appear in delicate Chantilly and in ribboned and embroidered laces. High fashion favors navy lace.

Look for bubble effects on pastel piques, and for corduroys claiming acceptance as a yearround fabric.

In stretch fabrics, the emphasis is on twills and gabardines. Stretch ginghams, duck, twill, poplin, chino, batiste, seersucker, cord and chambray, appear mostly in solids and a few checks and stripes. Some interesting laminates feature openweave and crochet fabrics.

Abstract prints are bigger and bolder, especially striking on black grounds. Water-color effects present pale tones in blurred, indefinite prints. The newest stripes are co-ordinated with matching prints or dots, and the dots themselves are profuse. New plaids are printed on the bias.

Fabrics were never lovelier.



A Quest for Growing-

Friendliness with Restraint

by ETHEL CHAPMAN

YOUTH IS A TIME for making friends – many friends; for knowing the warmth and security of companionship; the joy of sports and a social life with boys and girls you like and who like you. It is a time for learning to understand and appreciate other young people of different interests and backgrounds, for talking things over, arguing, sharpening wit against wit, being helpful when you can and generally having a good time together.

One would suppose that in these days of large high school classes, recreation centers and youth conferences a boy or girl would grow up having a rich experience in friendship; but in many communities this does not happen. The custom of early dating and going steady narrows their circle of friends to as

few as they might have in the most underdeveloped settlement.

The girls at our Ontario Girls' Conference expressed the usual views about this. To postpone early dating they recommended supervised square dancing for the 12to 15-year-olds instead of high school formals; and, as a change from going steady, they suggested community events where the boys and girls do not come in couples. Going steady, they said, gave a girl the security of having an escort when she needed one, but prevented both boys and girls from getting to know other people, got them into a social rut, sometimes led to marriage before they were ready for it but more often to boredom and a "break-up" in which one or the other was hurt.



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These are not original observations. It was when they came to the alarmingly common problem of a girl having to drop out of high school because she is going to have a baby, that our girls showed how serious their thinking can be. Asked if they thought anything in our social customs or attitudes might contribute to this, some of their comments were: "We have lost our respect for the white wedding dress." We think we know so much about biology, we are so frank in our talk that we have no reticence any more.' No one either at home or in school helps us to see sex as a part of the whole of life. It's a God-given gift and we have to learn to see it that way." A girl who had visited in way." A girl who had visited in England said: "The social ways of the young people there seem very much like ours but they don't have the same problems because the English boys don't drive cars."

THE GIRLS ACCEPTED the view that in association with boys it is the girl who finally sets the standard of behavior but they wanted to know how to do this with some graciousness. There is the custom of "petting." Most girls know why they can't take a chance on having any part of it. The trouble is that, knowing this, a girl may be unduly on guard about any expression of affection from a boy.

In Margaret Culkin Banning's book, "Letters to Susan," supposedly a mother's letters to her daughter away at college, the mother is trying to tell the daughter that a girl can be friendly and still have restraint. And she wrote: "Once last summer, when you had some friends in the house, I came downstairs and saw Joan and Sam dancing in the hall. As they finished the dance, he kissed her. She looked surprised but she didn't slap his face. Then they both laughed and went into the room with the rest of you. There was nothing exciting or furtive about it. I think Sam was just trying to say, 'You're sweet and I like you.' He wasn't being fresh or aggressive. And Joan is a friendly girl. But I never worry about her. I do worry about Clarice. When that girl goes into the garden with a boy I want to go after her and bring her back. And she is always disappearing toward dark gardens and parked

I think we understand the difference between Joan and Clarice. And we know the type of boy who never oversteps the rules, but he's a friendly soul, and, passing a girl, he may give her a quick squeeze about the shoulders, may take her hand as they walk together. This has nothing whatever in common with the long, close, private sessions in a parked car or alone in the girl's home, where young people who don't know any better - or who do know better - experiment with their emotions just as ignorant boys experiment with dynamite. And the risks are about the same.

IF A GIRL FINDS herself dating with a youth who would like to be something of a libertine and who can't see her point of view at all, she might very well tell him: "There are a lot of things I like about you but certainly I'm not the sort of girl you want. It troubles me and I know

you can't be happy about it. Let's not see each other any more."

There's a certain quality about a girl who has a moral code as definite as the Ten Commandments and who makes no apology for it. You don't find her loitering in secluded places or keeping habitually late hours or saying mean things about people or doing anything that could be called second rate. She carries her head high and faces the world squarely. A compliment sometimes paid to such a girl is, "She's a thoroughbred."

Being friendly with restraint can be one of the lovely experiences of youth. It has to be a free relationship-no possessiveness, no jealousy, a sincere regard and respect and affection for each other. A boy and a girl may discover that they like to talk together, to dance, or skate, or walk together, to work on committees or be in choirs or plays together. It means being interested in each other's welfare and ready to help if there is any way of helping. Sometimes such a friendship grows into the love of a lifetime, but whether it does or not, friendship too, can be "a many-splendored thing."

(Third of a series)

Here and There by JEAN GILCHRIST

JOHNNY DOESN'T eavesdrop, but he often hears remarks as he travels around. Can you tell which Canadian province he was in when he heard each of these remarks?

- 1. "There's been talk of building a causeway from here right to Prince Edward Island. Wouldn't that be something?"
- 2. "The big dam here at Outlook is going to be a great help to the farmers. They've seen some very dry years."
- years."
 3. "Man, look at all those flood-lights around the Mint. That should discourage robbers."
- 4. "People in these two little towns will never forget the tidal waves that came in after the Good Friday earthquake in Alaska."
- 5. "Over 300 years ago the men here formed the Order of Good Cheer. They took turns providing banquets and entertainment."
- 6. "Yes, I've jigged a few squid in my time, and the job's just as messy as that song says it is."
- 7. "If you think the traffic in this city is bad now, just wait until you see it in '67 when the World's Fair is on."
- 8. "This is where Fort Garry was built. There were quite a few forts established along the Red River."
- 9. "Yes, the province has a royal name, and the capital city was named for a queen."
- 10. "You found a dinosaur bone? All by yourself? Right here in the badlands?"

Answers

(1) New Brunswick. (2) Saskatchewan. (3) Ontario. (4) British Columbia. (5) Nova Scotia. (6) Newfoundland. (7) Quebec. (8) Manitobà. (9) Prince Edward Island. (10) Alberta.



Tessa's Responsibility

by JEAN GILCHRIST

TESSA O'SHEA smiled a secret smile. She had just taken on a responsibility and it made her feel very important.

"Tessa," Mummy had said, "I hope you realize that looking after Mrs. Simonson's budgie while she's away is a great responsibility. You are responsible for seeing that he's fed and watered and kept warm and safe."

Tessa looked at the little bird. "Hello, Bertie!" she said brightly, but he just put his little yellow head on one side and looked at her. He never talked for anybody but Mrs. Simonson.

After supper Tessa put the cover over Bertie's cage and, before she went to bed, she made sure no one had left a window open in the living room.

When Mummy came in to say goodnight, she smiled, "I'm glad to see that you're taking your responsibility so seriously. I guess I'd forgotten what a big girl you're getting

In the morning Tessa hurried downstairs to uncover Bertie's cage. The little budgie chirped at her. Soon he was busy with his water and birdseed. Tessa opened the cage door and reached in to play with his little swings and toys. Maybe Bertie would soon get so used to her he would talk to her. Mrs. Simonson would be gone for just 3 days so she didn't have much time.

"Tessa! Schooltime!" Mummy called. "Hurry, dear, or you'll be

Tessa quickly pulled out her hand and swung the little door shut. She grabbed her sweater and her apple for recess and ran out the back door calling "'By, Mummy! 'By Bertie!" as she went.

At lunchtime Mummy was waiting at the door. "Tessa, did you open the birdcage this morning?'

"Yes, I just reached in to . . ."

Tessa didn't finish. There could be only one reason why Mummy would ask that question. She threw her sweater at the nearest chair and dashed into the living room.

The cage door was wide open. Bertie was gone!

Tessa's eyes grew big with fear. "I was in a hurry-remember?-and I closed the door and didn't check to see if the latch went into place."

She brightened. "But he must be right around here somewhere. It's too cool today to have the windows

"I'm sorry," her mother said, "but I've looked all through the house. I

had the windows open this morning when I was using oven cleaner. He must have gone out then.

Tessa tried to hold back the tears. "What will I do? I was re- responsible for him. What will I do?'

"You'll have to do your best to find him," Mummy said. "And if you can't then we'll have to buy another budgie and explain to Mrs. Simonson what happened."

Tessa nodded sadly and went outside. "Here, Bertie. Here, Bertie," she called. There was no answering

A big cat sat on the walk, licking its paw in a contented sort of way.

"Oh, no!" Tessa gasped, "did you . . .?" She looked around. There were no feathers in sight, but she couldn't be sure. She knew Bertie couldn't fly very well because he got so little practice. She raced around the yard, looking in every place where she thought a little yellow bird might be.

She was just about to give up when she heard a chirp from high in the birch tree. She climbed up quickly and spoke quietly to the bird

as she got near him. She was afraid he would fly down to the ground where the cat, too, had heard the chirp. But Bertie stayed where he was, apparently afraid to fly any farther. Soon she was holding him carefully in her hand so she wouldn't squeeze him and yet not let him go.

When the little bird was safely back in his cage Tessa breathed a big

"Now you'll have to hurry with lunch," Mummy told her, "but I'm glad you did the important thing first. Do you still think you're old enough to take on this responsibility?

Tessa looked thoughtfully at her peanut-butter sandwich. "I wasn't when I thought I was," she said solemnly, "but I am now."

"Yes," Mummy said with a smile, "I believe you are."

Will

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Baking with Yeast . . . Pride and Pleasure

ACCORDING TO A study conducted among homemakers bake with yeast, those of us who enjoy this baking adventure can be divided into two groups. The study calls the two groups heavy bakers and light ones. It's not a very flattering description, so it's well to explain right now that the heavy and light refer to the frequency with which we bake with yeast.

"Heavy" bakers are those who bake with yeast at least once a week, "light" ones, about once a month. Whatever their habits, all agreed that in kneading and shaping the springy, living dough they found a satisfaction in creative accomplishment. They baked in pride and pleasure. And you can bet their families take pleasure in the eating and pride in the one who makes it possible!

Raisin tea buns make pleasant snacking. They're a pace-changing lunch-box treat too, stuffed with a mixture of minced ham or luncheon meat, mayonnaise and sweet relish. They're good with fruit desserts, and toast very nicely indeed.

Viennese Coffee Cake features a filling of honey-sweetened fruit and nuts coiled in a delicious yeast by GWEN LESLIE

dough. Vienna is famous for its rich pastries and breads, and this is just as delicate and delicious as you could ask.

Light and tender Cream Buns with a lightly sweetened whipped cream filling may be served as dessert or as a tea-time specialty.

Danish Apricot Treat is a delectable example of the kind of meltin-your-mouth baking for which Denmark is famous. Chopped apricots top a rich yeast dough.

Raisin Tea Buns

c. milk ½ c. sugar

1½ tsp. salt

% c. butter or margarine ½ c. lukewarm water

2 pkg. active dry yeast3 eggs, well beaten

2 tsp. finely grated lemon rind (optional)

6½ c. (about) sifted all-purpose flour

2 c. seedless raisins
Melted butter or margarine
Scald milk. Stir in ½ cup sugar, salt and 3/3 cup butter; cool to lukewarm. Meanwhile, measure lukewarm water into a large mixing bowl. Stir in 2 teaspoons sugar. Sprinkle yeast over

top. Let stand 10 minutes, then stir well. Stir in lukewarm milk mixture, lemon rind if desired, and 3 cups of the flour. Beat until smooth. Stir in raisins. Work in sufficient additional flour (about 31/2 cups more) to make a soft dough. Turn out on a lightly floured board and knead until smooth and elastic. Place dough in greased bowl and brush top with melted butter or margarine. Cover and let rise in a warm place, free from drafts, until doubled in bulk (about 1 hour).

Punch dough down and turn out on lightly floured board. Cut in half. Shape one half into a roll 12 inches long. Cut in 12 equal pieces. each piece into a smooth ball. Place balls about ½ inch apart in greased pan. Repeat with other half of dough. Cover and let rise until doubled in size, about 45 minutes. Brush tops with melted butter.

Preheat oven to 400°F. (hot) and bake buns for 12 to 15 minutes, or until nicely browned. Yields 2 dozen

Viennese Coffee Cake

½ c. sugar

1½ tsp. salt ¼ c. butter or margarine

½ c. lukewarm water

tsp. sugar

pkg. active dry yeast

eggs, well-beaten (about) sifted all-purpose flour

1/3 c. liquid honey

2 tsp. cinnamon

1/3 c. butter or margarine, melted

1/3 c. rich cream

1½ c. seedless raisins

c. chopped pecans
 egg white, slightly beaten

T. sugar

1/4 c. slivered almonds

Scald milk; stir in ½ cup sugar, salt and the ¼ cup butter or margarine. Keep at lukewarm.

Measure the lukewarm water into a large bowl; stir in the 2 teaspoons sugar. Sprinkle with yeast. Let stand 10 minutes, then stir well. Stir in lukewarm milk mixture, beaten eggs and 2½ cups of the flour. Beat until smooth and elastic. Work in enough more flour to make a soft dough, about 2 cups more. Turn dough out on floured board or canvas and knead until smooth and elastic. Place in greased bowl; grease top of dough. Cover and let rise in a warm place, free from drafts, until doubled in bulk (about 1½ hours).

Meanwhile, measure honey into a bowl; blend in cinnamon, $\frac{1}{2}$ cup melted butter or margarine, and rich cream. Mix in raisins and pecans.

Punch dough down and turn out on a lightly floured board or canvas. Knead



relaxing

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until smooth. Divide dough into two equal portions. Cover with a tea towel and let rest 10 minutes. Roll one portion of dough into a rectangle 8 inches by 20 inches. Spread to within 1 inch of edges with half of the honey mixture. Beginning at a long edge, roll up like a jelly roll. Pinch seam and ends to seal in filling. Stretch the roll gently to about 27 inches in length, shaping it as you stretch it. Coil the roll in a wellgreased 8-inch round layer pan. Repeat with other portion of dough. Cover. Let rise in a warm place, free from drafts, until doubled in bulk, about 45 minutes. Brush tops with slightly beaten egg white and sprinkle with the 2 tablespoons sugar and the slivered almonds.

Preheat oven to 350°F. (moderate) bake cakes for 35 to 40 minutes. Yields 2 coffee cakes.

Danish Apricot Treat

1½ c. chopped well-drained sweetened

½ c. lukewarm water

tsp. sugar

pkg. active dry yeast

c. sifted all-purpose flour

1/4 c. sugar

1/4 c. shortening

1 egg, well beaten

1/2 tsp. grated lemon rind

1/4 c. liquid honey

Prepare apricots. Measure lukewarm water into a large mixing bowl and stir in the 1 teaspoon sugar. Sprinkle with yeast. Let stand 10 minutes, then stir

Meanwhile, sift the all-purpose flour, the ¼ cup sugar and salt into a bowl. Cut in shortening finely. Stir well beaten egg, lemon rind and flour mixture into dissolved yeast. Combine thoroughly, beating about 2 minutes. Turn dough out on floured board or canvas and knead until smooth and elastic. Place in greased bowl, grease top of dough, and cover bowl. Let rise in a warm place, free from drafts, until doubled in bulk (about 14 hours).

Punch dough down. Turn out on a lightly floured board or canvas and shape into a roll. Roll dough into a rectangle 12" by 7". Place on greased cookie sheet. Grease top, cover, and let rise in a warm place free from drafts until doubled in bulk (about ¾ hour).

Meanwhile, combine chopped apricots, liquid honey and cinnamon. Make a light depression in top of dough to within 1" of edges. Spread with apricot

mixture. Preheat oven to 350°F. (moderate) and bake apricot-topped dough for 25 to 30 minutes. Cool on cake. rack. When cool, pipe a fine trim on top apricot mixture with Confectioners Icing; spread edges of cake with icing and sprinkle with chopped nuts.

Confectioners' Icing: Combine 1 cup sifted icing sugar, ¼ teaspoon vanilla and enough milk to make a stiff icing.

Cream Buns

3/4 c. milk 3 T. sugar

1½ tsp. salt ¼ c. shortening ½ c. lukewarm water

tsp. sugar

pkg. active dry yeast

eggs, well beaten c. (about) sifted all-purpose flour

tsp. unflavored gelatin

T. cold water

1/2 pt. (11/4 c.) whipping cream

T. sifted icing sugar

1/4 tsp. vanilla

Scald milk; stir in the 3 tablespoons sugar, salt and shortening. Cool to lukewarm. Meanwhile, measure lukewarm water into a large bowl; stir in teaspoon sugar. Sprinkle with yeast, let stand 10 minutes, then stir Stir in lukewarm milk mixture, well beaten eggs, and 2 cups of the flour. Beat until smooth and elastic. Work in enough more flour to make a soft dough - about 2 cups more.

Turn dough out on floured board canvas and knead until smooth. Divide dough into 2 equal portions and shape each portion into a 9-inch roll. Cut each roll in nine 1-inch pieces. Cover with a tea towel and let rest 10 minutes. Shape each piece of dough into a smooth ball and place well apart on greased cookie sheets. Grease tops and cover with a tea towel. Let rise in a warm place, free from drafts, until doubled in bulk (about 45 minutes).

Preheat oven to 375°F. (moderately hot) and bake buns for 12 to 15 minutes. Cool completely on cake racks.

Soften gelatin in the 1 tablespoon water, then dissolve over hot water. Beat cream until softly stiff; add softened gelatin and continue to beat cream until stiff. Beat in icing sugar

Split cold buns almost through crosswise. Open them up and fill with whipped cream, using rosette tube on a pastry bag if available. Sift a sprinkling of added icing sugar over tops of buns for a final decorative touch. Yields 1½



In these raisin tea buns, a slightly sweetened dough generously studded with raisins bakes into a fragrant homemade bun that is popular any time

SCRUMPTIOUS CRESCENTS... you bake yourself!



Perfect for your next Dinner Party! Your family and guests will enjoy these home-made crescents. They're marvelously easy with FLEISCHMANN'S the Fast Rising Yeast, preferred by generations of home-makers.

SESAME CRESCENTS

(Yield 24 crescents)

Stir in

Stir in

1 cup milk

1/3 cup granulated sugar

2 tsps. salt

1/3 cup Blue Bonnet

Margarine or butter

Cool to lukewarm. Meantime, mea-

sure into bowl

½ cup lukewarm water

Sprinkle with contents of

2 envelopes Fleischmann's Fast-Rising

Dry Yeast Let stand 10 minutes, THEN stir

well.

Stir in lukewarm milk mixture and

2 cups pre-sifted all

purpose flour

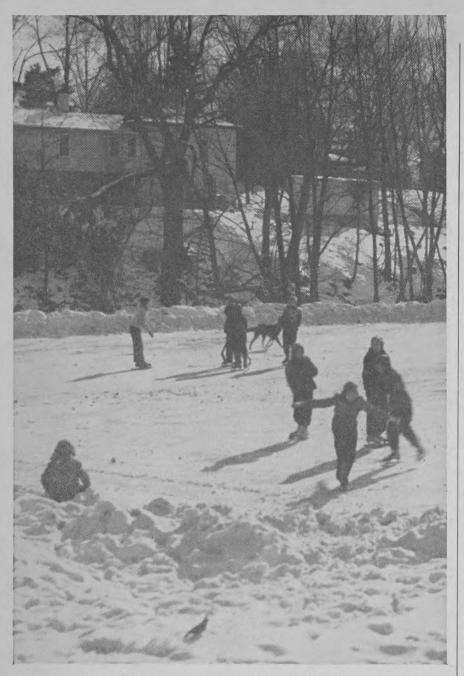
2 tsps. granulated sugar Beat until smooth

Work in enough additional pre-sifted all purpose flour (about 13/4 cups) to make a soft dough. Turn out dough onto lightly floured board. Knead until smooth and elastic. Place in lightly greased bowl; brush top with melted Blue Bonnet Margarine or butter. Cover. Let rise in warm place, free from draft, until doubled in bulk, about 1 hour. Punch down dough; turn out onto lightly floured board. Divide into 3 equal parts. Roll out each into a 9-inch circle; brush with melted Blue Bonnet Margarine or butter; cut into 8 wedges; sprinkle with sesame seeds. Starting at wide edge, roll up each wedge tightly. Seal points firmly. Place, points down, on greased cookie sheets. Curve to form crescents. Brush lightly with melted Blue Bonnet Margarine or butter. Sprinkle tops with more sesame seeds. Cover. Let rise in warm place, free from draft, until doubled in bulk, about 45 minutes. Bake in preheated hot oven, 400°F., about 12 to 15 minutes or until golden brown.

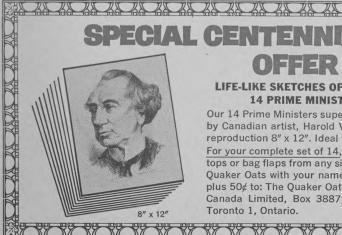


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Supper Pies Win Favor

GROUND BEEF is popular with old and young alike. So is pie. And when ground beef is featured in a hearty supper main-dish pie, you have a winning combination. A cornmeal topping provides the golden crown for a spicy mixture of beef and vegetables in one of the inviting supper dish recipes below. Chopped onion accents the pastry in the savory to-mato cheeseburger pie.

Tomato Cheeseburger Pie

c. sifted all-purpose flour

½ tsp. salt ½ c. soft shortening

tsp. finely chopped onion

c. cold water

1/4 c. catsup 2 tsp. finely chopped onion

1/8 tsp. pepper 1/2 tsp. sweet basil

1/4 tsp. marjoram

c. corn flake crumbs

1 lb. ground beef 1¼ c. grated cheddar cheese 1 egg, slightly beaten 6 slices tomato

T. butter, melted

Preheat oven to 400°F. (moderately hot).

Sift flour and ½ teaspoon salt together into mixing bowl. Cut in shortening until mixture resembles coarse cornmeal. Add 2 teaspoons onion and cold water, stirring with a fork only until combined. Shape into ball. Roll out on lightly floured board to a circle about 11 inches in diameter. Fit loosely into 9-inch pie plate. Fold edge under

Combine catsup, 2 teaspoons chopped onion, 1 teaspoon salt, pepper and herbs. Brown ground beef in a small amount of heated shortening, stirring frequently. Remove from heat. Stir in catsup mixture, cheese, egg and ½ cup corn flake crumbs. Turn into pastrylined pie plate. Top with tomato slices. Combine remaining corn flake crumbs with melted butter, mix thoroughly, and

sprinkle over tomato slices. Bake about 20 minutes, or until crust is browned. Cut in wedges to serve. Yields about

Gold Crown Beef Pie

medium onion, chopped

medium green pepper, chopped

T. shortening lb. ground beef

Two 8-oz. cans seasoned tomato sauce (2 c.)

12-oz. can whole kernel corn (1½ c.)

1 clove garlic, minced 1 tsp. salt

2 to 3 tsp. chili powder

1½ c. grated cheddar cheese ¾ c. yellow cornmeal

½ tsp. salt 2 c. cold water 1 T. butter

Preheat oven to 375°F. (moderate). Grease a 10" by 6" by 2" baking dish.

Cook chopped onion and green pepper in hot shortening until just tender. Add meat and brown lightly. Stir gently. Pour off excess fat. Add tomato sauce, corn, garlic, salt, chili powder, and pepper to taste. Simmer 20 to 25 minutes to blend flavors. Add grated cheese and stir until melted. Pour into a greased 10" by 6" by 2" baking dish.

While meat mixture simmers, stir cornmeal and salt into cold water in a saucepan. Cook and stir until thick. Stir

Add grated cheese to meat mixture and stir until melted. Pour into greased baking dish and top with cornmeal mixture in narrow strips. Bake about 40 minutes, until crust is golden brown. Yields 6 servings.—G.L.

Key to Abbreviations

tsp.-teaspoon

oz.-ounce

T .- tablespoon c.—cup

lb.—pound pt.—pint

pkg.-package

qt.—quart



Tomato Cheeseburger Pie features a savory ground beef and grated cheese filling in a flaky onion pastry shell. Butter-crisp crumbs top tomato slices

CFA WRITES POLICY

(Continued from page 12)

grants to farmers to cover a portion of the costs of approved improvements to land and buildings.

Dealing with unemployment insurance, the meeting passed a resolution to press the Federal Government for unemployment insurance for all farm help and on the same basis as other industries.

A keynote speaker of the evening, Dr. John Deutsch, said the challenge of the next few years is to ex-Canada's economy rapidly enough to provide employment to the wave of workers coming into the labor force. Dr. Deutsch, who is chairman of the Economic Council of Canada, said that between 1963 and 1970 11/2 million additional jobs will be needed in Canada and the rate of expansion in the labor force will be at a record level in comparison to other advanced countries. He said that planning is necessary to bring about expansionary policies which would result in the employment opportunities which are

Another speaker was the Hon.

Maurice Sauve, Federal Minister of Forestry, who is responsible for ARDA and for the feed freight assistance policy. He pointed out that since the present feed freight policy is an interim one with a report pending, he had decided to talk about ARDA instead. He said that the new 5-year ARDA agreement, now before the provinces for ratification, is aimed chiefly at improving the welfare of the people who use the resources in rural areas rather than on the use of the resources themselves. He pointed out that governments were planning to increase ARDA expenditures significantly and that they were agreed on the reorientation of the program.

Mr. Sauve described some of the poverty that exists in Canada, suggesting that it carries dangerous emotional and psychological overtones. He said no man enjoys living in poverty and that in Canada we must reintegrate poor people into the economic life of the country and enable them to become productive citizens. He called on all Canadians and, in particular, organizations such as CFA, to help.—D.R.B.

News Highlights

(Continued from page 13)

that the Farm Bureau apply for membership in the Canadian Federation of Agriculture in place of the present MFA membership. The MFA provincial board was given authority to cease operation when equivalent services are provided by the Manitoba Farm Bureau and/or other agency.

Two persons well-known in agriculture have accepted responsibility with Expo 67 — the World Fair in Montreal. W. P. Watson, general manager of the Royal Agricultural Winter Fair and former Livestock Commissioner and Assistant Deputy Minister of Agriculture in Ontario has been named a consultant with responsibility for the livestock exhibit. Dr. Cyril Goulden, former research director of the Canada Department of Agriculture, has been appointed project officer. His job will be to develop the agriculture theme at Expo 67.

CO-OPS LOOK AT FAME

Co-operative Commentary, published by the Co-operative Union of Canada, makes the following pertinent comments about the troubles of Farmers' Allied Meat Enterprises Co-operative:

• It was a movement of protest rather than a co-operative approach to an economic need. The leadership exhibited a strong sense of social injustice rather than business sagacity of the type required for an endeavor of high complexity.

• FAME was quite unorthodox as a co-operative in its relationship with members. It could not serve its members as a co-operative should because hogs had to be purchased through the marketing board rather than marketed directly for the member and there was no real hope of promptly placing plants within reach of all members.

• FAME was unacceptable to large elements of the co-operative movement in Ontario and toward the end it became an outcast. Financially responsible and substantial elements decided to make no serious attempt to save it from disaster. Why? Because they had no confidence either in its leadership or in its program and had apparently concluded that a wreck was inevitable.

QUARANTINE STATION

As soon as ice conditions in the St. Lawrence Gulf allow the transportation of equipment, the Canada Dept. of Agriculture will begin construction of its maximum security quarantine station at Grosse Ile, Que., Veterinary Director General Dr. Ken Wells told delegates to the 6th annual meeting of the Canadian Charolais Association in Calgary. This station will enable Charolais breeders to import much-needed new bloodlines directly from France.

The Grosse Ile site was first used as a human quarantine station in 1837. About 100 years later it became a virus research center for animal diseases and is still used for that purpose today. Under the charge of Dr. J. C. Plummer, the station is used to train veterinary students in "exotic" diseases — dangerous infections which both the American and Canadian governments are trying to keep out of North America. Because of the existence of these facilities, the only new building needed will be a fenced quarantine barn, complete. with showers and dressing rooms. This will house the 100 head of French Charolais expected at the station next October or November.

"The quarantine period will have to start in the fall because we won't



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- Ruggedly built for years of service
- Light weight can be mounted to treat grain directly into the truck box

For increased germination, uniform coverage and greater profits, treat your seed with Green Cross Liquid Merlane Concentrate using the "Spray Mist" Liquid Seed Treater.

Available from your Green Cross Dealer.



THE SHERWIN-WILLIAMS CO. OF CANADA LTD. Woodstock, N.B. Montreal • Toronto • Winnipeg • Calgary • Edmonton • Vancouver

be able to get them here sooner," Dr. Wells explained. "These will be calves born in February, March and April. They will undergo three testings. They will be tested by the

French Government on the premises of origin for several major diseases. If they are given a clean bill of health, the government will issue a certificate to this effect. Then the animals will be purchased by the Canadian buyers. From there, the cattle will go into quarantine in France for 1 month, during which time they will be tested by the Canadian Government.'

The calves will be brought by ship directly to Grosse Ile where they will be tested again. Canadian cattle of the same age will be put in with the French animals. If at the end of a 3-month test period the cattle show no signs of disease (disease not present on this continent), the Canadian test animals will be slaughtered and the Charolais will be released to their owners.

"It will actually be a full winter quarantine," said Dr. Wells. "You can't get them off the island until March 15 to April 1. There will be one quarantine period a year.

"Of course," he added, "if there is a big demand for these cattle we will have to make some other arrangements. We will have to anticipate the demand so that we can have facilities ready to handle it."-

HOG MARKETING COMMISSION

Manitoba's new Hog Marketing Commission swings into action in late February and under it producers will have to decide which processor is to get their hogs before the hogs leave the farm. The Commission will begin selling hogs by teletype through its two yards at St. Boniface and Brandon, on February 25. All hogs produced in Manitoba and offered for sale for slaughter will come under the Commission's jurisdiction.

The Manitoba scheme is unique in two ways. It will be regulated by a commission made up of representatives from both producers and processors. It is a voluntary plan and producers may choose to sell through the Commission or direct to processors. However, producers must pay 30 cents per hog whether they use the Commission services or not. "Since all producers will benefit by any market improvement resulting from this scheme then they should all share in its costs," said Commission Manager W. B. Munro.

To opt out, a producer must contact the Commission office in St. Boniface by letter or in person. He will receive a supply of vouchers. Every shipment of hogs that goes direct to a processor must be accompanied by one of these vouchers. The producer must indicate on the voucher which processor he wants the hogs delivered to. Producers may deliver their own hogs direct to the processor but truckers must clear loads through the Commission's yards before proceeding to the processor. "The Commission wants the producer to make a conscious decision on marketing each shipment of his hogs," explains Munro.

Regulations will prohibit bonuses or premiums to truckers for procuring hogs.

Producers will vote on the scheme within 3 years. Anyone who has sold \$500 worth of hogs in any 12month period in the 2 years preceding the vote will be registered as a producer and be eligible to vote.



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Over 40 years of solid experience in making feed grinders have gone into the BearCat GRIND-O-MIX. This machine offers you the largest selection of types and designs of hammermills and roller mills available anywhere. The Grind-O-Mix handles all types of feed under all conditions, and it will load and unload anywhere. You can process up

Swinging auger unloader

. 4 inspection windows

BEARCAT Quality FARM MACHINERY SINCE 1908 CHECK THESE SPECIAL FEATURES Tall tank available on mixer for hay mixes









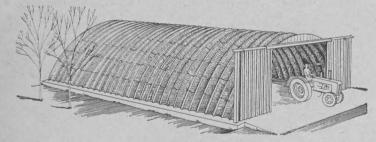




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(Also ideal for arenas, curling rinks, service establishments, etc.) NO COLUMNS - NO PAINT - NO FIRE INSURANCE - NO UPKEEP



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66

PLANNING THAT PAYS

(Continued from page 16)

ago. Custom work is helping to finance his expansion. In the past year, Bilyea planted 200 acres of corn, sprayed 600 acres of crops, filled 15 silos and picked 125 acres of husking corn. Says Bilyea, "It all means long hours; it is essential to have good equipment to do a timely job at home and an efficient custom job. You also need a good bank manager in order to take advantage of good buys in farm equipment.

For Earl Jennings and sons at Debert, N.S., such labor-saving devices as a barn cleaner have permitted expansion in poultry, dairy and beef. Says Arnold Steven, "People ask why I combine when I have five boys at home. I tell them I have the boys at home because I combine!"

A switch to better cattle has been a springboard to success for some farmers. In 1941, A. D. Neill purchased his first purebred. Now the "Devon" herd is widely known in the U.S.A. and Canada and Neill has been honored with the Holstein-Friesian accolade of Master Breeder.

Increased egg production for specific markets has provided in-creased income for the extra families on the farm of Herb Fiddes and his sons Jack and Bob.

HOW TO TRANSFER

Once plans are laid for an expanded farm enterprise, the next problem is to arrange for the transfer to the younger generation. The



Take Gin Pills to help increase the urinary flow and so relieve bladder and urinary irritations that are often the cause of back ache, tired logy feeling and

disturbed rest.

FOR THE KIDNEYS VALUABL

72 PAGE **BOOKLET ON** ANIMAI AND POULTRY HEALTH



Concise booklet packed with up-to-date information on animal and poultry diseases. Describes latest scientific aids for the farmer and breeder. Enclosed coupon covers special offer on VioBin veterinary products through your dealer.

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and	ease send me a copy of you d poultry health booklet. I ver postage and handling.	r ne	os	an e 2	in 50	nal	0	
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Greenwoods found their solution in a 4-year transitional father and son agreement. Now, son Harry is on his own and specializing in a corn and laying-hen operation. The Neills, on the other hand, established a limited company, "A. D. Neill and Sons Ltd.," 5 years ago. The sons can plan their own lives with the assurance of an agreed weekly wage. Their enthusiasm for the family business is rewarded with an annual \$2,000 transfer of stock to each son.

Dr. Patterson emphasizes the need for a good set of books; as the size of the business increases, so will the necessity for precise records. The poultry enterprise can look like an attractive one for further expansion -until it is charged with the homegrown grain which it relies upon.

The ODA publication "Incorporation of Family Farm Businesses in Ontario" has some sage advice for those planning for the next genera-"There are undoubtedly instances where incorporation provides the best answer to these problems but there are also many others where it does not. Even where incorporation is advisable, it will be necessary to examine each case on its own merits and draw up a plan for incorporation that best suits the specific requirements. Each case is likely to be different and no standard plan for incorporation will be suitable for all.

"It is particularly necessary now for farmers to plan the future development of their businesses. A well-thought-out plan today, or the lack of it, will in no small way determine future success or failure."



HI FOLKS:

When Samson began to juggle with the pillars of the temple the whole thing collapsed. That's what can happen if we allow anybody to juggle with one of the pillars of our society, namely our banks. I refer to our solid (and sometimes stolid) financial institutions, not to the Banks you might associate with the Seamen's Union.

For years our banks have been monuments to all that is Canadian. They have been both above reproach and hard to approach. If you didn't need money they would lend you all you could carry. If you needed money they generally threw you out. The idea - and a sound one too-was that if you didn't need money you must have lots of it, and if you have lots, you will be able to repay a loan. This worked especially well during the Depression because the banks got richer and the people got poorer and poorer.

Things are different now. farmer friend was complaining the other day that his local bank manager was always after him to take out a loan. He grows seed grain on a pretty big scale, and has all the land and machinery he can handle. What would he want with a loan?

Back in the Depression, he tells me, he once went to his banker for a \$50 loan to buy binder twine and was turned down flat. He was able to harvest his crop only because a local storekeeper came to his aid. That's what I call a bank - a firm hand on the business reins to see that nobody gets any fancy ideas.

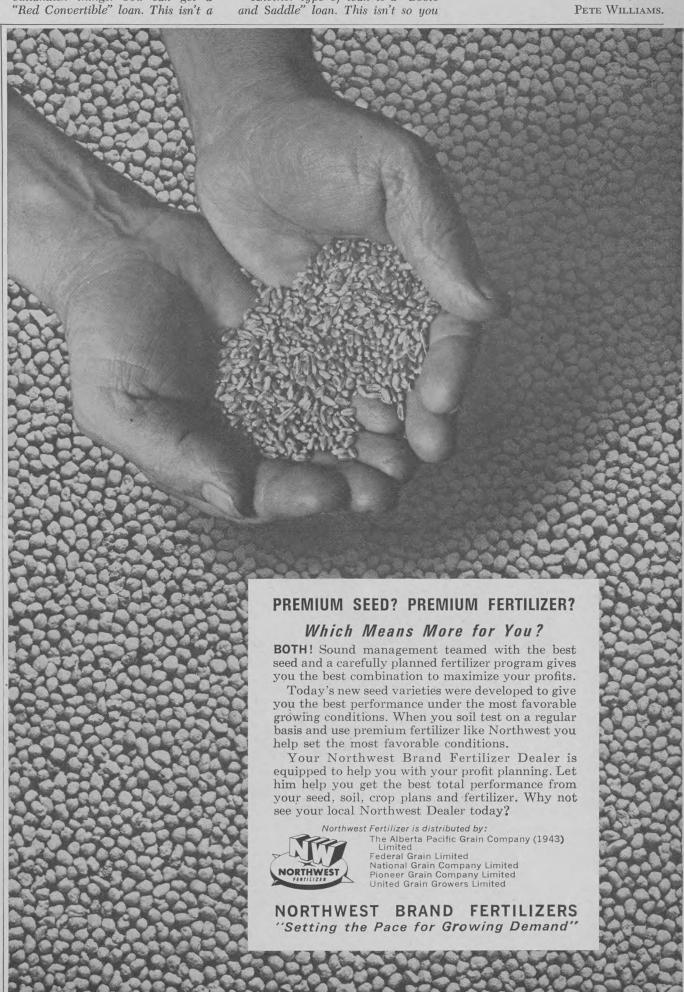
Now it appears these long-time pillars of parsimony have fallen into frivolous hands. They are trying to get people-ordinary insolvent people -to borrow money for all sorts of outlandish things. You can get a "Red Convertible" loan. This isn't a loan that you can convert into Russian rubles - no sir, it's a loan for a class of automobile which at one time was almost a badge of dishonor. Can you imagine the look on a bank manager's face a few years back if you said you wanted to borrow money for a red convertible? If you even DROVE a red convertible he would instruct his daughter to have nothing to do with you. The only respectable citizen who could drive a red car in our town was the fire chief.

Another type of loan is a "Boots and Saddle" loan. This isn't so you

can buy a saddle or boots, it's for a pony so you can fritter your time away in the saddle when you should be out looking for a job. The next step will probably be a "Pole Sit-ter's" loan, or a "One Way Ticket to China" loan for people who want to defect to the other side.

What scares me is that it means the banks don't care any more. Without that stern paternal eye to scan our financial affairs adult delinquency is bound to rise.

Sincerely,



Letters

More "Charolais Controversy"

I wish to thank Peter Lewington for his descriptive article, Charolais Controversy," in the November issue. It is rewarding to see that our Government and the U.S. Government are now taking a realistic approach to the possibility of livestock improvement, through the introduction of foreign animal semen. It should be pointed out that there are areas in Europe where there hasn't been a foot-and-mouth outbreak for many years. Because of our antiquated law covering importation of live animals, we are unable to import from these areas. This law states that animals cannot be imported from a known foot-and-mouth country which does not have a slaughter control program, regardless of quarantine or any other tests. Most European countries control this disease quite successfully through vaccination, as we do our brucellosis, as Mr. Lewington mentioned. The ages for vaccination are much the same as ours for brucellosis, making it very simple to export unvaccinated animals, which could be quarantined and tested as long as felt necessary.

I do have one complaint regarding this little story. This is the picture



This French Charolais cow and calf depict the type preferred by writer James

of the supposedly "French Charolais." I have recently returned from France and I am enclosing a picture which I took of a French cow which depicts, I believe, more the type we are striving for.

RODNEY JAMES, Secretary-Treasurer, Canadian Charolais Assoc'n, Lacombe, Alta.

Editor's Note: The photograph reproduced here does indeed emphasize some of the desired Charolais characteristics better than the print which we published earlier. However, it shows what is available to French breeders; the picture which we carried is indicative of the calibre of stock presently on the islands off the North American continent. It is the latter groups which will probably influence our cattlenot the cattle at stud in France. Re-

cently the United States Dept. of Agriculture announced "semen importation costs may range from \$30,000 to \$60,000 or higher per semen test, and importation will be limited to 20 semen lots per year."

More about FAME

I read with interest your article in the January issue entitled "FAME Only in Name." FAME has 12,600 shareholders who are the cream of rural Ontario in that they are concerned about more than just what lies within their own line fences.

In view of the fact that you draw much revenue from those who are "farming the farmer," it is not hard to understand why you wrote the article.

FAME is down and has a chance of getting up, so you decide you

will kick us, and tramp us in the dirty filth you delight in.

FAME sent out an SOS call and you, with others of the news media and some other farm organizations, pull up alongside in answer to our call, and torpedo us.

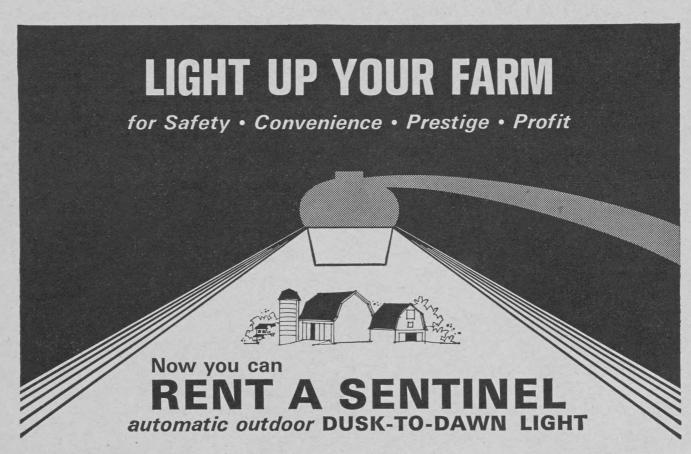
FAME has had a struggle from the start which proves the worth of the enterprise. Now she is the victim of "economic rape."

FAME may or may not go out of existence, but don't you think for a minute that a cause as justifiable as "Farmer-Owned Processing," promoted for 4 years by hundreds of people who have more honor than you know anything about, will pass out of existence. This is the greatest self-help program ever undertaken by farmers in Canada and the seed that is sown will germinate and come to fruition some day.

Because of your obvious concern for those who buy advertising space, rather than for those who are your readers, I hereby request that you discontinue our subscription and I will do everything in my power to advise other FAME members to do likewise.

One of the FAME Fools, M.B., Stouffville, Ont.

EDITOR'S NOTE: For more on this subject, we refer our readers to the views of the Co-operative Union of Canada, on page 65, and to our editorial page this month.



Who needs a SENTINEL?

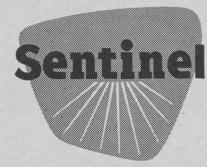
You—if you operate an efficient, up-to-date farm! A low rent SENTINEL takes care of outdoor lighting worries. No repairs, no investment, no unexpected expenses. The economical SENTINEL goes on at dusk... goes off at dawn...automatically

You don't even snap a switch!

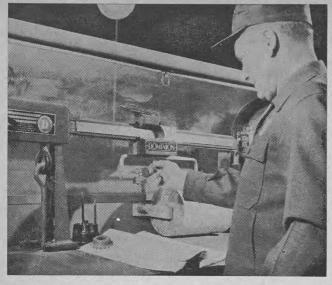
THE SENTINEL DUSK-TO-DAWN LIGHT

- illuminates walkways, yard & storage areas
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- lights feed-lots to reduce bruising and increase weight gain
- reduces accidents—discourages prowlers

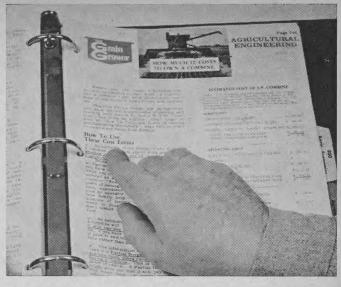
LOW RENTAL covers everything, installation, maintenance and the cost of electricity or you can PURCHASE a SENTINEL from your local Electrical Contractor.



Sponsored by Electric Utilities as members of the CANADIAN ELECTRICAL ASSOCIATION



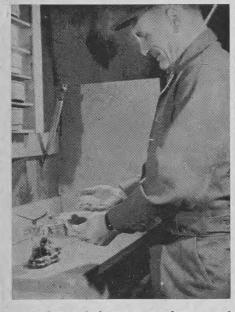


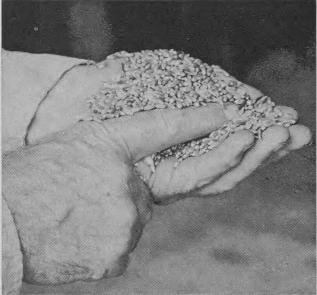


A good agent checks his scales at least twice a month by comparing the same load on the front scale and in the hopper scale. In addition, all scales are checked once a year by the government and his Travelling Superintendent.

A lot of paperwork and careful figuring is needed nowadays when agents make out your cash and storage tickets and fill in their daily reports. Sometimes this means a good agent will have to work nights in order to catch up on his bookwork—and still provide fast, accurate service during the day.

U.G.G. insists that agents have a complete file of recommended chemical, seed, feed and fertilizer recommendations so they can help farmers use the products they sell. Also, all agents have U.G.C.'s own "Grain Grower" binder; it's full of practical farm facts about crops, farm engineering and beef and hog management.*







Before a dockage test is taken, a good agent will make sure he has a sample that truly represents your load. Accurate weighing is possible with this "four-in-one" scale.

Grading borderline cases is difficult. But a good agent—who knows what he has in his bins and who really knows his grades—can do an accurate job. Early in-service training courses help agents judge difficult grades.

The agent who handles a full line of seed, fertilizer, feed, weedkillers, etc., can be an asset to your farm business—especially if he can also supply you with scientific recommendations that will do the best job for you.

What really counts when you pick an Agent?

You can get to know an agent by talking with him. But, when it comes right down to it, you can't judge how good he is at his job until you see what happens when you haul a load of grain onto his platform.

A good agent may not be much good at talking. But just watch him work! See if he looks after your interests! You get to *know* that a good agent's judgment is absolutely fair and accurate.

Here is what U.G.G. looks for when promoting a helper or hiring a new man to manage an elevator;

- 1. He must be absolutely honest.
- 2. He must be a hard worker.
- 3. He must know his business thoroughly... and be capable of keeping up-to-date on fertilizer, seed varieties and everything else for which recommendations change. (Of course he will be helped by U.G.G.'s special training program for agents).

Likely you agree that these are the qualities that *really* count when you pick an agent to weigh and grade and buy your grain.



The Farmers' Company

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Send me your GRAIN GROWER package, containing a sturdy binder, all the permanent pages from 1963 and 1964, plus a \$1 subscription for 1965. (Regular price if bought separately: \$4.50.) I enclose \$4.

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ADDRESS

Wheat Becomes "Weenuts"

TAKE GOOD, CLEAN WHEAT, soak, deep fry, add salt and preservatives and you've got a new agricultural product—"Weenuts."

The formula, a year in the making, is the brain child of Herbert J. Thompson, one-time oil and grease salesman. He and nine other shareholders comprise Weenuts Limited, located at Weyburn, Sask. Four of the shareholders are local farmers.

Mr. Thompson got the idea from his childhood experience on his father's farm south of Weyburn, when he and his sisters ate the cooked wheat kernels after the fall stubble burning.

In operation 5 months, Mr. Thompson expects big yields from the \$8,000 investment. With the product perfected, the company is concentrating on sales.

Increased volume will mean a fully mechanized plant and an enlarged labor force over the current two persons employed.

The wheat is now picked, packaged and boxed by hand. Output is 40 cases or 2,400 bags per day.

The process is quite simple and takes 2 days. Grain is purchased from an elevator company, cleaned locally and binned at the plant. Batches are soaked for about 36 hours. This doubles the size of the kernel. Three bushels are used per day with four soaking tanks in operation. About a half bushel at a time

is laid on a long table covered with cloth where the grain is hand picked and surplus moisture evaporated.

Peanut oil, plus additives to prevent rancidity, are used in the cooking process which takes a minute at 375 to 400°F. The kernels again double in size. The enlarged cooked kernels are hand salted immediately and poured onto long tables to dry, sprayed again with a salt solution and bagged.

As Mr. Thompson explains it, the final product resembles tiny nuts and hence the name "Weenuts."

The product comes in two flavors, garlic and plain, in a package designed by Mr. Thompson's son, an art graduate. It is marketed under the "Mr. Wheat King" name and the slogan "Golden-toasted wheat — a nutritious treat to eat."

New Farm Account Book

INTERPROVINCIAL co-operation within the prairie region has gone beyond the strictly governmental level in the case of farm accounting.

This winter, farmers in both Manitoba and Alberta will be spending their evenings figuring out their inventories for insertion in identical farm account books. Both provinces have adopted the Prairie Provinces Farm Account Book as the one to be distributed.

The book, a compromise between refined accounting methods and the old "scribbler" approach, was developed over a 3-year period by a committee of Manitoba, Saskatchewan and Alberta agricultural economists. It is considered to include the best features of all account books circulated on the prairies by commercial firms, universities and departments of agriculture.

The Prairie Provinces Farm Account Book is unique in other ways, according to G. A. Kristjanson, chief provincial agricultural economist in Manitoba. It features a removable income breakdown sheet that is recognized by income tax authorities as a legal return form. It is also set up in such a manner that farmers can accurately analyze their businesses, enterprise by enterprise, without becoming bogged down in intricate accounting details.

Farmers themselves had a hand in improving the book. It was tested by a group of Manitoba farmers prior to its acceptance and was revised on the basis of farmers' suggestions. The inclusion of the income tax sheet is one example of farmer influence.



"Thanks, Ed, I was wondering if I'd turned the switch on or not."



One-stop banking

In a few minutes they'll be out again, with all their banking done. Right now they want to cash a cheque, get something out of their safety deposit box, have their savings account book made up. Next time? He may be in about a loan; she to buy a money order for her aunt's birthday. An able, obliging staff looks after them; and should they need help on some financial problem, the manager is there — a good man to talk things over with. Complete service. Trained people. Convenient, one-stop banking at your chartered bank.

THE CHARTERED BANKS SERVING YOUR COMMUNITY

Through 5,650 branches, all across Canada, the chartered banks bring full-range banking within the reach of everyone.

Homemakers' Hints

When hemming skirts and dresses, I use bobby pins instead of straight pins to hold the hemline in place. The bobby pins hold the hemline firmly and leave no pin holes in the fabric. —Mrs. H. Bailey, La Porte, Sask.

I cut floor cleaning time in half by setting a portable fan on the floor and using it to speed up the drying of a washed floor. By the time I've taken care of the scrubbing equipment and water, the floor is ready for waxing. This works to hasten the drying of liquid wax, too.—Mrs. Alfred Toews, Portage la Prairie, Man.

I find bottle tongs very handy when browning meat for stew. The tongs hold a large piece of stewing meat more securely than the big fork I used to use.—S. A. Tower, Westmorland Co., N.B.

To prevent a child's rocking chair from tipping over backwards, attach small corks to the ends of the runners.

Cover the top of the children's play table with a sheet of blackboard or a coat of blackboard paint. Tiny tots will enjoy drawing pictures on the table surface; when they're finished the table can be "erased." — Mrs. Anne Flamand, Regina, Sask.

So the children won't turn down the page to mark their place in a book, I cut envelope corners for them to slip over the corner of the page they stop at. Pictures or sayings such as, "This is where I fell asleep" decorate the markers. Our children trim their own markers. They like the idea and it's made them more careful with books. — Mrs. D. Lewis, Guelph, Ont.

I save empty thread spools and slip them over the necks of clothes hangers to keep hangers and clothing from jamming together on the rod. — Mrs. D. E. Brown, Stony Plain, Alta.

When I have my hair all set in rollers and then remember I have to put on a pullover sweater, I put on my plastic shower cap so the sweater slips easily over hair and curlers. — Miss Patsy Hefferman, Georgeville, Antigonish Co., N.S.

If you paint the last of the steps leading down to the basement white you will find it easier to see both in daytime and at night. — Mrs. B. J. Foley, Finch, Ont.

When I ran out of glue I discovered that a bit of egg white did the job of pasting a clipping in my scrap book. Just the bit that stays in the shell was enough for quite a large clipping.—Mrs. Kenneth Hodge, Eaton Corner, Que.



Adapted to suit modern tastes, the Poppy Seeds in this cake account for the crunchy texture; nut-like flavor. Bake it with Magic! Serve it with pride!

Heavenly "Magic-Charm" Cake!

HEAVENLY "MAGIC CHARM CAKE"

1 cup milk

½ cup poppy seeds

3/4 cup soft Blue Bonnet Margarine or butter

1½ cups granulated sugar

4 eggs

2 cups once-sifted all purpose flour

OR 21/3 cups once-sifted pastry flour

3 teaspoons Magic Baking Powder

1 teaspoon salt

2 cups milk

½ cup granulated sugar

6 tablespoons cornstarch

1/4 teaspoon salt

 $1\frac{1}{2}$ teaspoons vanilla

Preheat oven to 350°F (moderate). Grease 3, 9-inch layer cake pans; line bottoms with waxed paper; grease again.

Combine the 1 cup milk and poppy seeds; set aside. Cream Blue Bonnet Margarine or butter. Gradually add the $1\frac{1}{2}$ cups sugar, beating until fluffy. Add 2 egg yolks; beat until light. Sift flour with Magic Baking Powder and the 1 tsp. salt. Add alternately with milk-poppy seed mixture, beginning and ending with flour, blending after each addition. Beat 3 egg whites until stiff but not dry; fold in.

Pour into prepared pans, spreading to even. Bake in preheated oven 25 to 30 minutes. Remove to cooling racks; let stand 10 minutes. Invert on racks; remove paper when cool.

Meanwhile, prepare filling. Scald the 2 cups milk in double boiler over boiling water. Beat one egg yolk with one whole egg. Combine the ½ cup sugar, cornstarch and ¼ teaspoon salt. Blend into beaten egg. Stir a little scalded milk into egg mixture; stir into scalded milk. Cook over boiling water, stirring constantly, until smooth and thickened. Pour into bowl to cool. Stir in vanilla. Stir while filling is cooling. Spread filling between layers and frost top with your favorite Lemon Butter Icing using about 3 cups icing sugar. Decorate with crushed walnuts.



I made it myself - with MAGIC! STANDARD BRANDS LIMITED



This winter, Robin Hood brings you a flavour fiesta



"Casserolé"

Robin Hood's new free recipe leaflet of casseroles with a festive hip-hooray

That succulent-looking dish you see above is called an American Casserole. It's just one of 7 happy-go-yummy recipes in Robin Hood's new leaflet, "CASSEROLÉ!" (Two other sunny

casseroles are pictured below.) · Pick up your free recipe leaflet at your favourite grocery or supermarket. Treat your family tonight. And for guaranteed results, be sure to use

Robin Hood Flour, Regular or Instant-Blending. It's Bake-Tested.





